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The Tocharian subjunctive

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The Tocharian subjunctive

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front cover: view on Subeši east site north of Kuča (photo by Kristin Meier)

back cover: fragment of a mural from Simsim grotto №48 (ZXBQ 5: plate 76)

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PREFACE

The value of the Tocharian evidence for the reconstruction of the Indo-European proto-language is disputed. Still, it is generally agreed that its verb is relatively archaic, and if Tocharian has preserved something old that can change the picture of reconstruction based on the other Indo-European languages, it must be looked for in this domain. Yet the Tocharian verb is poorly understood, principally because the central category of the subjunctive poses problems. Its formation and syntax remain difficult, but especially its historical explanation has guaranteed decades of hot debate with little convergence between differing opinions. Whereas the verb has generally received a good deal of the scholars' attention, most of the research was aimed at other categories, such as the present and the preterite. With the subjunctive taking an intermediate position, as it is a kind of present of the preterite, these studies have created a dangerous vacuum: how is it possible to address matters of the verb if such a central category is unclear?

Therefore, it is high time the subjunctive were studied, in its morphology, its syntax and its origins. This is what the present work aims at. Much weight is attached to its synchronic analysis, both formally and semantically, in order to solve many remaining problems of detail, but most of all to understand the principles and patterns of the verbal system. Only on the basis of a thorough understanding of the synchronic facts can we proceed to the diachronic level: insight in the various morphological patterns and markers is a necessary prerequisite for the uncovering of the many analogical restructurings and repairs.

The research presented here was carried out within the framework of an *assistent-in-opleiding* (AiO) position at the Faculty of Arts, now Humanities, of Leiden University in the years 2004-2009. Without this position, nothing similar could have been possible. I am therefore grateful to the staff of the Centre of Non-Western Studies, who have granted me this opportunity, and to Jos Schaeken, Maarten Mous, Jeroen van de Weijer and Gea Hakker who have always supported me when I had become a member of the Leiden University Centre for Linguistics in my second year.

My sincere thanks go to Georges-Jean Pinault, Paris, who has taught me Tocharian, from the very basics in 2003 up till endless matters of minute detail in 2009. During in total three long stays in Paris he has invested an incredible amount of time and effort, which I hope are not wasted. He has shown me how to work in a field that seems so hostile to beginners, how to translate Tocharian passages and how to proceed if you can't translate them.

Almost from the start of my project I have been in frequent contact with Melanie Malzahn, Vienna, which has led to a fruitful exchange of all kinds of materials relevant to Tocharian studies. She has also sent me the commented appendix of her

forthcoming book *The Tocharian verbal system* (forth.b), which I have been using since 2008 with much profit, and to which is occasionally referred. Unfortunately, I have not been able to consider and incorporate the main text of her book, which she kindly sent me in September 2009.

In the last two years, I have been most kindly welcomed on several occasions by Werner Winter, Preetz, the father of Tocharian historical linguistics. Long discussion sessions have directed me to many important problems; even if I do not agree on all topics, these discussions have influenced my approach in essential points. I thank him for his interest and his hospitality.

To Sasha Lubotsky, the supervisor of my thesis, I am grateful for his confidence and his quick and minute corrections. Further, I thank Rob Beekes and Frits Kortlandt, who have formed my way of thinking about language and language change as much as Sasha. Frits has also read parts of a draft version at an amazing speed and his comments have all led to important improvements.

Apart from many discussions about Proto-Indo-European, reconstruction and philology, my friends and colleagues Alwin Kloekhorst, Guus Kroonen, Lucien van Beek and Tijmen Pronk have shaped the past five years with many drinking sessions and incredible fun at conferences, summer schools, etc. Uwe Bläsing has always been there for matters of Turkish or scanning, and small pessimist sessions on nearly everything. I am further grateful to Hanno Lecher, who has been able to get hold of a copy of the Uyghur Maitrisimit edition.

After all this linguistics, I mustn't forget my ski mates Arnoud, David, Joris and Marijn, and Anita, Fief, Frank, Jesse, Julie, Martijn, and all other coffee and beer companions. Last but not least I thank my family, my parents Coobke and Piet, my brothers Wouter and David, and Kristin.

Michaël Peyrot – Leiden, May 2010

ABBREVIATIONS AND SYMBOLS

grammatical abbreviations

For Old Uygur linguistic terms that have no clear parallel in Tocharian or Indo-European linguistics, references to the grammar of Erdal (2004) are given.

abl.	ablative	inf.	infinitive
abs.	absolutive	inst.	instrumental
acc.	accusative	int.	interjection
act.	active	ipf.	imperfect
adj.	adjective, adjectiviser	ipv.	imperative
ag.n.	agent noun	loc.	locative
all.	allative	m.	masculine
aor.	aorist	mid.	middle
	(cf also Erdal 2004: 240)	neg.	negation
arch.	archaic	nom.	nominative
	(cf Peyrot 2008a)	obl.	oblique
ben.	benefactive auxiliary	opt.	optative
	(cf Erdal 2004: 260)	perl.	perlative
class.	classical	pf.	perfect
	(cf Peyrot 2008a)	pl.	plural
coll.	colloquial	poss.	possessive
	(cf Peyrot 2008a)	priv.	privative
com.	comitative	proh.	prohibitive
cond.	conditional	pron.	pronoun
	(cf Erdal 2004: 320)	prs.	present
cvb.	converb	prs.-sbj.,	present-subjunctive
	(cf Erdal 2004: 308)	prs/sbj	
dat.	dative	prt.	preterite
dem.	demonstrative	ptc.	participle
du.	dual	q.	question particle
emph.	emphatic (particle)	purp.	purposive
equ.	equative	refl.	reflexive
	(cf Erdal 2004: 376)	resp.	respective auxiliary
f.	feminine		(cf Erdal 2004: 528)
fut.	future	sbj.	subjunctive
gen.	genitive	sg.	singular
ger.	gerund	suff.	pronoun suffix
humil.	humilitive auxiliary	vn	verbal noun
	(Erdal 2004: 529)	vol.	volitional
indf.	indefinite, indefinitive		(cf Erdal 2004: 234)

language abbreviations

Alb.	Albanian	Latv.	Latvian	Pruss.	Prussian
Arm.	Armenian	Lesb.	Lesbian Greek	PT	Proto-Tocharian
Chin.	Chinese	Lith.	Lithuanian	PTA	Pre-Tocharian A
Du.	Dutch	M	Middle	PTB	Pre-Tocharian B
Fr.	French	MHG	Middle High German	Russ.	Russian
Gk.	Greek	Mo	Modern	SCr.	Serbo-Croatian
Gm.	German	O	Old	Skt.	Sanskrit
Goth.	Gothic	OAv.	Old Avestan	TA	Tocharian A
Iir.	Indo-Iranian	OCS	Old Church Slavonic	TB	Tocharian B
Ir.	Irish	OHG	Old High German	Uy.	Uyghur
It.	Italian	Osc.	Oscan	Ved.	Vedic
Lat.	Latin	PIE	Proto-Indo-European	YAv.	Young Avestan

symbols

/x/	phonological form	>	developed phonologically in
[x]	• phonetic form;	<	developed phonologically from
	• uncertain reading in a Tocharian text;	<x>	orthographic form
	• restoration in other (Old Uyghur and Sanskrit) texts;	>>	developed by analogy in
	• addition in translation to match English grammar	<<	developed by analogy from
		⇒	yields through zero-derivation
		⇐	zero-derived from
		→	yields through derivation
(x)	• restoration in a Tocharian text;	←	derived from
	• added defective vowel in Old Uyghur texts	√	root
{x}	morphological form	!	caesura, added to the original text
⟨x⟩	infix in a morphological form	x x	root type
*x	reconstructed (diachronic) form	C	cover symbol for consonants
x*	deduced (synchronic) form	V	cover symbol for vowels
		∕	sandhi

Tocharian spelling

Strictly speaking, the pronunciation of Tocharian is unknown because the language is dead. Therefore, the characters of the International Phonetic Alphabet given below are no more than an approximation.

spelling	IPA	spelling	IPA	spelling	IPA
<i>a</i>	[ɐ]	<i>ṃ</i>	[n]	<i>ly</i>	[ɬ]
<i>ā</i>	[a], possibly [a:]	<i>ṇ</i>	[ɲ]	<i>w</i>	[w] or [v]
<i>ä</i>	[ə]	<i>c</i>	[c] or [tɕ]	<i>ś</i>	[ɕ]
<i>i, ī</i>	[i]	<i>ñ</i>	[ɲ]	<i>ṣ</i>	[ʂ]
<i>u, ū</i>	[u]	<i>y</i>	[j]	<i>ts</i>	[ts]

1 INTRODUCTION

This is a study of the Tocharian subjunctive. It aims at describing the formation of this category and at assessing its use, meaning and syntax. On the basis of this synchronic analysis, the origins of the Tocharian subjunctive in the Indo-European proto-language will be investigated.

1.1 TOCHARIAN

“Tocharian” is the conventional name of two languages, usually labelled “Tocharian A” and “Tocharian B”. Less frequently, we also find the names “East Tocharian”, “Turfanian” or “Agnean” for Tocharian A and “West Tocharian” or “Kuchean” for Tocharian B. Both Tocharian A and B have long become extinct and they are only known to us through manuscripts found in the North-West of China, in the Uygur autonomous region Xinjiāng (Uy. Šinjan), at the northern edge of the Tāklimakān desert. Tocharian A was found at the central site Šorčuq near Qarašāhār and in the eastern region Turpan, whereas Tocharian B was found in Šorčuq, Turpan, and the western region Kuča, the total stretch from Kuča to Turpan being about 600 kms. Most Tocharian B and all Tocharian A manuscripts are of Buddhist content, written on paper in the “slanted” northern variant of the Indic Brāhmī alphabet. It is difficult to date the manuscripts precisely, but the oldest Tocharian B material may be as old as the 5th century CE, while the youngest manuscripts are probably from after the 10th. Tocharian A is attested over a shorter period, approximately from the late 7th until the 10th century (Pinault 1989: 7-12).

Tocharian is not a particularly difficult language, nor is the script difficult to decipher. Yet Tocharology, the study of Tocharian, has to cope with considerable problems of interpretation: there are important lacunae in our knowledge of both languages concerning the meaning, inflexion and formation of many individual words as well as in several points of grammar. This is principally due to the fragmentary state of the corpus. Although with about 9,000 fragments in Tocharian B and 2,000 in Tocharian A the corpus is not extremely limited in quantity, the majority of the fragments are so small that they hardly yield more than word forms. The number of more or less complete leaves does not exceed 50 for Tocharian A and 200 for Tocharian B, texts of more than one leaf being even rarer. In most cases, fruitful use of a text is only possible with a parallel in another language such as Sanskrit, but such parallels are often difficult to trace or they may be lacking altogether; either because that parallel text is not preserved, or because the Tocharian text is an original composition that happens not to be translated into another language. In spite of all these difficulties, however, we are on firm ground as far as the essence of Tocharian grammar is concerned, and a large part of the words occurring

in the texts is well known: although the pitfalls need to be stressed, the study of Tocharian is by no means a hopeless undertaking.

Not only were the two languages in close contact historically, they are also genetically related. I assume that speakers of the two languages were able to communicate with some difficulty without special training, but that in reality they were at some point so accustomed to each other that a certain degree of convergence took place; apparently, it was especially Tocharian A that was influenced by Tocharian B (Peyrot *forth.c*). Despite the similarities between the two languages, they must have gone through a considerable period of separate development before the time of attestation, as for instance differences in the basic Buddhist vocabulary show that their speakers adopted Buddhism independently (Lane 1966). Their common ancestor, called “Proto-Tocharian”, is not directly attested, but reconstructed by means of the comparison of Tocharian A and B. It is usually dated at least before the beginning of the common era, but historical records lacking, the precise date of the break up of Proto-Tocharian into the predecessors of Tocharian A and B is unknown. Apparent Tocharian elements in the 3rd and 4th century CE Indic Prākṛit of Niyā in the South-East of the Tāklimakān (Burrow 1935) are only of value for the study of the prehistoric migrations of the Tocharians and contribute little to the reconstruction of Proto-Tocharian.

Although Tocharian differs typologically slightly from better-known Indo-European languages, its Indo-European character is obvious: it is genetically related to English, Latin, Greek, Sanskrit, and so on. It stands out typologically because it has only one series of obstruents (written as voiceless stops) whereas other languages have at least two, mostly three (as in Proto-Indo-European); on top of the four primary nominal cases nominative, oblique (accusative), genitive and vocative it has additional agglutinative case suffixes, which is rare in Indo-European (although it is not unique); the verb is characterised by a basic distinction between present and subjunctive, not found elsewhere; and, last but not least, the lexicon contains numerous loanwords from Sanskrit, Prākṛit, Iranian, Altaic and Chinese. Nevertheless, Indo-European traits can hardly be overlooked: both languages allow for relatively complex syllable structures; morphology makes extensive use of vowel gradation (“Ablaut”, partly transformed into palatalisation) and suffixation, with only a limited role for reduplication and one nasal infix; nouns with the four primary cases just mentioned inflect for singular, dual and plural number, and adjectives agree in case and number; the verb has several different stems, expressing tense, aspect and mood, as well as active and middle personal endings; the basic word order is SOV, but variation to different degrees is common.

The position of Tocharian in the Indo-European language family is difficult to establish (see Lane 1970, Ringe 1991): it is an independent branch like, for instance, Greek. Although it is often argued that Tocharian is archaic – that is, it branched off early – compared to central branches as Indo-Iranian or Balto-Slavic, this is hard to prove (see Winter 1997 for mainly lexical arguments). In any case, its relative archaicity can in no way be compared to that of Anatolian, which was definitely the

first split-off from Proto-Indo-European (or, for that matter, Proto-Indo-Hittite; see most recently Kloekhorst 2008b: 7–11). For the moment, it is best to keep in mind that Tocharian has a potential for the preservation of archaisms, but in view of its vitality in all kinds of morphological restructurings, caution is due so as not to jump to conclusions.

1.2 THE TOCHARIAN SUBJUNCTIVE

Although Lévi and Meillet have labelled a Tocharian B subjunctive “subjunctif” in their pioneering 1914 article, the principles of their analysis have proved wrong.¹ As it is in general use now, the term “subjunctive”, or, in German, “Konjunktiv”, was introduced by Sieg, Siegling and Schulze, who stated: “Neben den drei Indikativen [present, preterite and imperfect] gibt es noch einen Konjunktiv, der zugleich das Futurum vertreten muß, einen Optativ und einen Imperativ” (1931: 324).

In view of the future function of the subjunctive, Couvreur has argued for a different label, namely “futurum-conjunctief” (1947: 73). However, since the term “subjunctive” is rather vague, being used for various categories in languages of the world, it cannot be called a misnomer. The only point is that the term “subjunctive” must not be taken as a *description* of the function of the Tocharian subjunctive: as a label, it is an empty term, and it always needs to be explained what it stands for. Throughout this study, I will use the term “subjunctive”, but it will never be used to refer to the function of any form – it is the name of a category, no more.

In formal² terms, the Tocharian subjunctive is a second present, as noted by Sieg, Siegling and Schulze: “Eine einheitlich charakterisierte Konjunktivbildung gibt es nicht. Die Konjunktivstämme [...] sehen den einfachsten Präsensformen [...] oft zum Verwechseln ähnlich” (1931: 341; see also Lane 1959: 158). The present and the subjunctive have the same endings and are only distinguished by a difference in stem. Since the two categories make use of largely the same stem inventory, many presents can only be identified in contrast with the respective subjunctive and vice versa. In addition, there is a large number of verbs where present and subjunctive are identical, especially in Tocharian B (Lane l.c.). Although the subjunctive is a “second present”, its stem is generally shorter than that of the present if they are different. This often gives the impression that the present is derived from the subjunctive, e.g.

¹ They give *wārpatar* IT246a3 as a subjunctive (p 16). Indeed, this form has traditionally been analysed as a 3sg.sbj. ‘(s)he will receive’, on the assumption that it is a mistake for *warpatār* (e.g. Couvreur 1954a: 48 with footnote 30; I now choose to read *wārpanar*, a mistake for the 3sg.prs. *wārpanatār*, see Peyrot 2007a: №246). In any case, their subjunctives *yamātrā* and *aiśātrā* (p 17) were misreadings for the 3sg. optatives *yamitrā* IT247b5 ‘would make’ and *aiśitrā* M500.12b2 ‘would know’.

² Throughout this work, I will use the term “formal” only in the phonetic, phonological or morphological sense; I am not concerned with formal semantics.

Tocharian B 1sg.prs. *yamaskau* ‘I am doing’ vs 1sg.sbj. *yāmu*: compared to the subjunctive, the present has an additional element <aska>, morphologically {-ske-}.

Functionally, the subjunctive is clearly distinct from the present. The present covers “traditional” present meanings, to be rendered into English as a simple present or a present continuous, e.g. ‘I do; I am doing’. The subjunctive, on the other hand, expresses future tense and has a wide range of functions in subordinate clauses, such as conditionality, concessivity, or indefiniteness; in English, ‘I will do’, ‘if I do’, ‘even though I do’, or ‘whatever I may do’, respectively. The Tocharian subjunctive is not typically used to express wishes of the type Fr. *que je fasse* ‘may I do’.

The contrast between the present stem and the subjunctive stem does not only distinguish the present from the subjunctive: it is an essential contrast in the lay-out of the Tocharian verb. Both stems are the basis of derived stems: the present stem is the basis of the “imperfect” past tense, while a modal category called “optative” is formed from the subjunctive stem. In addition, there is a strong affiliation between the subjunctive stem and the “preterite” past tense and the imperative. Thus, the difference between present and subjunctive is of crucial importance for the analysis of the whole Tocharian verb.

In the brief outline above, the term “indicative” has not been used. For other languages, “indicative” may be used to denote non-modal finite verb forms, i.e. presents, pasts or futures that are not subjunctive, optative, imperative or infinite. For the Tocharian verbal system the term “indicative” is not of great use since none of the distinctions in indicative forms, namely present, imperfect and preterite, is found with the subjunctive, optative or imperative. Thus, all presents, imperfects and preterites are indicative, whereas the subjunctive is an independent formation without, for instance, tense distinctions as in Fr. prs. *je fasse*, ipf. *je fisse*, pf. *j’ai fait*, etc.

1.3 INDO-EUROPEAN SOURCES

The essential problem of the historical explanation of the Tocharian subjunctive is that there is no obvious candidate for a comparison, not in Proto-Indo-European, nor in any of the Indo-European languages. At first sight, one of the obvious options is the Proto-Indo-European subjunctive, but this comparison is difficult for two reasons: the reconstruction of the Proto-Indo-European subjunctive is full of problems, and as far as it can be reconstructed, it shows no evident similarity to the Tocharian subjunctive.

Although subjunctives are found in a number of branches of Indo-European, many of these are independent creations or continuations of different Proto-Indo-European categories, such as the optative. The only formation that qualifies for the status of the “Proto-Indo-European” subjunctive is formed with the **e/o-*suffix. In Greek and Sanskrit, this suffix can be added to several tense-aspect stems, such as the present, the aorist, and the perfect, to yield the present subjunctive, the aorist subjunctive and the perfect subjunctive. If the basic tense-aspect stem is athematic, i.e.,

ending in a consonant, the $*e/o$ -suffix is added to that consonant, but the suffix can also be added to present stems that already have a present suffix $*-e/o-$, yielding a long vowel subjunctive in $*-ē/o-$.

The problems of the reconstruction of the $*e/o$ -subjunctive are the shape of the suffix itself, the distribution over the tense-aspect stems, and the meaning, which is notoriously difficult to grasp. The suffix is strange because it seems to be the same as the $*e/o$ -present suffix, which suggests that the $*e/o$ -present and the $*e/o$ -subjunctive somehow reflect a single formation. There is evidence from Vedic and Latin that the $*e/o$ -subjunctive was in origin *not* an extra suffix to any tense-aspect stem, but rather an independent formation to the root; especially the combination of the two $*e/o$ -suffixes into one $*ē/o$ -suffix must be secondary. As the etymology of its name suggests, the subjunctive was often used as a subordinating form: Lat. *subiunctivus* being a calque on Gk. ὑποτακτική ‘subordinating’. Indeed, in Latin, Greek and Vedic it is frequently found in subclauses. Its function in main clauses is difficult to establish; in Vedic, for instance, vague notions such as “expectancy” and other nuances of uncertainty and futurity are found. The future meaning is also suggested by split-off forms in Greek and Latin that have become reanalysed as futures. Although the formal resemblance with the $*e/o$ -present is commonly recognised, the few proposals that have been made to unify their meanings have not found general acceptance (Renou 1932; Kortlandt 1983a).

Even though the Proto-Indo-European subjunctive and the Tocharian subjunctive are semantically not completely identical they are rather close. Formally, however, the categories could hardly be more different. Since the formal characteristic of the Proto-Indo-European subjunctive is the (thematic) $*e/o$ -suffix, the fact that Tocharian has a subjunctive characterised precisely by the lack of that suffix has drawn special attention. As Schmidt has put it,

“Unter den verschiedenen Konjunktivbildungen des Tocharischen darf man sicherlich den athematischen Konjunktiv, d.h. einen themavokallosten Bildungstypus, als die größte Überraschung ansehen, ist es doch gerade der Themavokal, der im Griechischen und Indisch-Iranischen das unterscheidende Merkmal des Konjunktivs gegenüber dem Indikativ darstellt.” (1992: 108; 1994a: 230)

Another obvious difference is that Tocharian does not have a subjunctive suffix at all: it is not formed with a suffix from a basic stem, but it is itself a basic stem – the *present* is derived with a suffix. Further, the Tocharian subjunctive cannot be formed to tense-aspect stems, but is independently formed from the root; however, as noted above, this may in fact have been the more original situation in Proto-Indo-European as well.

Apart from the Proto-Indo-European subjunctive, there is no obvious candidate to compare the Tocharian subjunctive with as far as semantics is concerned. The Proto-Indo-European optative, for instance, has a different meaning; moreover, it is certainly continued directly in the Tocharian optative, so that it cannot be used to explain the subjunctive. The semantics of the “tenseless” semi-modal category

“injunctive” is too vague to allow for a direct comparison: a connection between the Proto-Indo-European injunctive and the Tocharian subjunctive must be based principally on formal considerations. Likewise, the Tocharian subjunctive might be compared with the Proto-Indo-European perfect and the aorist, but purely on formal grounds.

Some Tocharian subjunctive formations display paradigmatic gradation in the root, which goes back to Tocharian *e* and *ə* vocalism. This in turn is commonly projected back as Proto-Indo-European **o* : **Ø* gradation, found in the perfect. Thus, the comparison with the perfect is mainly based on the alternations in the root (on reduplication see 4.1.5, p 334). Alternatively, Kortlandt has proposed to explain the same gradation pattern rather from the **ē* : **e* gradation of the Proto-Indo-European *s*-aorist (1994). As a third possibility, Jasanoff derives the grading subjunctive from a perfect-like, but different and not commonly accepted Proto-Indo-European verbal type heavily based on the Hittite *hi*-inflexion (e.g. 2003: 161-165). All three explanations face serious challenges: the derivation from the perfect or Jasanoff’s *hi*-inflexion type does not account for the meaning nor for the stem pattern of the Tocharian subjunctive, while Kortlandt’s derivation from the *s*-aorist requires an explanation of the absence of both the *s*-suffix and the expected initial palatalisation.

In sum, although the Proto-Indo-European subjunctive could be a candidate for comparison as far as the semantics is concerned, formal problems abound. Conversely, when focusing on the form the perfect is deemed an attractive source, but an explanation of the semantics is difficult. The most important question, however, is how to account for the peculiar make-up of the Tocharian verbal system with a basic subjunctive stem and a derived present.

1.4 AIM

The aim of this study is threefold. It aims at

- describing the formation of the subjunctive;
- describing the use and meaning of the subjunctive;
- finding the origins of the subjunctive.

As mentioned in section 1.2 (p 15) above, the subjunctive can be seen as a second present with a strong affiliation with the preterite stem. The problem of the formation of the subjunctive is whether the present and the subjunctive really make use of the same stem inventory, or if some formations are rather specific for presents and others for subjunctives. Further, the question is to what extent the subjunctive and the preterite can actually be called *the same stem*, and, if not, how they differ. From the wide range of morphological markers, we need to know which distinguish the present from the subjunctive, and which the preterite from the subjunctive stem.

In my description of the use and meaning of the subjunctive I will investigate its use in order to assess the basic meaning. The principal problem is whether the subjunctive is modal or temporal or both, and whether the different uses in for instance

main and subclauses can be unified. Besides, it needs to be clarified how it differs from neighbouring categories such as the present and the optative.

In the search for the origins of the subjunctive, the relationships between the different verbal stems will receive special attention. The strong affiliation between the preterite and the subjunctive needs to be explained, as well as the fact that the present seems to be derived from the subjunctive and the peculiar phenomenon that they can be identical. Further, the question needs to be answered whether the vowel gradation in the root of some subjunctives is to be derived from the perfect, the *s*-aorist, or a third source.

1.5 STRUCTURE

Little needs to be said about the organisation of this book: the main body consists of three relatively independent chapters on the three main problems. Chapter 2 treats the formation of the subjunctive, chapter 3 its use and meaning, and chapter 4 its origins. As each of the three chapters requires a specific justification of the method applied and the structure that is followed, such matters are discussed in the introductions to the respective chapters. A fifth chapter recapitulates the findings and outlines old problems not yet solved and new ones that have been encountered. The book is concluded with a list of references, and indices of translated passages.

2 MORPHOLOGY

In order to address the questions whether the subjunctive can be seen as a second present and to what extent the preterite stem is identical with the subjunctive stem, the morphological markers and stem patterns of the verb need to be analysed.

2.1 INTRODUCTION

The Tocharian verbal system is complex. The verb expresses person and number of the subject, tense, aspect, mood, and voice; the direct or indirect object may be expressed by a clitic attached to the verb. In addition, there is a system of derived transitive and intransitive verbs, which is so productive that it can without reserve be called a part of the grammar rather than the lexicon. The principal formal pillars of the verb are five different basic stems: present, subjunctive, preterite, preterite participle and imperative. From these basic stems, some additional stems and many infinite forms are derived.

The main reason for the complexity of the verbal system is the existence of different classes for each of the five basic stems. In my analysis, a verb can take only one class for a particular stem, but on the basis of a given stem it may be difficult or impossible to predict the class of another stem of the same verb. The set of stems of a particular verb is its stem pattern; the way in which different stem classes combine into stem patterns is one of the main topics of this chapter, as well as one of the recurrent issues in the whole book.

2.1.1 TRADITIONAL ANALYSIS

The traditional stem analysis of the Tocharian verb is that of the *Elementarbuch* (Krause and Thomas 1960), in many respects a step backwards compared to the old classification of the *Tocharische Grammatik* (Sieg, Siegling and Schulze 1931). With a stricter synchronic view and better linguistic insights, this old classification is often superior to that of the *Elementarbuch*. Unfortunately, the 1931 classification has passed into disuse, and since their class numbers interfere in a confusing way with the *Elementarbuch* system generally used nowadays, I will refrain from further reference to the old stem analysis.

The basic assumptions of the *Elementarbuch* classification are simple: 1) Tocharian A and Tocharian B are almost identical, 2) present and subjunctive are almost identical, 3) preterite and imperative are almost identical. The principles of their classification are based on the assumptions that: 1) Tocharian A and B should be classified in the same way, 2) present and subjunctive should be classified in the same way, 3) preterite and imperative should be classified in the same way.

Additional principles are: 4) all stems are formed from the root by means of a suffix, and, according to traditions of Sanskrit grammar, 5) complex suffixes follow simple ones in the system of class numbers. Further, the idea that Tocharian A and B are more or less the same leads to the bias that Tocharian B is the better candidate for showing the “Tocharian” situation because it is more archaic. This method has yielded a class system with 12 present classes, 11 subjunctive classes (numbered 1 to 7 and 9 to 12 with number 8 lacking), 6 preterite and 6 imperative classes. A number of blanks for Tocharian A attest the preference for Tocharian B.³

stem suffixes of the Tocharian verb

present		subjunctive		preterite		imperative		CLASS
CLASS	TA	TB	TA	TB	CLASS	TA	TB	
1	Ø	Ø	Ø	Ø	1	ā	a	<i>base verb</i> 1
2	’ā/a	’ə/e	’ā/a	’ə/e	2	RED	C’aCa	CAUS C’aCa 2
3	a	e	a	e	3	Ø/sā	Ø/sa	Ø/sā Ø/sa 3
4	a	o	—	’əy	4	ṣā	ṣṣa	ṣā ṣṣa 4
5	ā	a	ā	a	5	ññā	ñña	ññā ññə/e 5
6	nā	na	nā	na	6	’ā/a	’ə/e	<i>irregular</i> 6
7	⟨n⟩	⟨n⟩	ñā/a	ñə/e	7			
8	ṣā/sa	ṣə/se	—	—	8			
9	—	ṣṣə/ske	ṣā/sa	ṣṣə/ske	9			
10	nāṣā/sa	nəṣṣə/ske	nāṣā/sa	nəṣṣə/ske	10			
11	sāyṣā/sa	səṣṣə/ske	sāyṣā/sa	səṣṣə/ske	11			
12	ññā/a	ññə/e	ññā/a	ññə/e	12			

There are a number of minor problems, some of which are caused by the restricted size of the scheme. For instance, Tocharian A seems to have two present classes in -a (3 and 4), but the actual difference is found in the vocalism of the root. The

³ The classification of Sieg, Siegling and Schulze (1931) is still highly interesting, since it gives a completely synchronic analysis of Tocharian A. For instance, the imperfect has its own classes because it is not as predictable as it is in Tocharian B, and the subjunctive is discussed under the preterite, to which it is indeed very closely related (closer than in Tocharian B). The table below gives their classes (“sss”) compared to those of Krause and Thomas (1960, “TEB”).

SSS	TEB	SSS	TEB	SSS	TEB	SSS	TEB	SSS	TEB
present						preterite			
1	1	6	6 (nā)	10	10 (nās)	1a	1 (ā)	4b	5
2	3	7a	6 (nā)	11	11	1b	1 (ā)	4c	1 (= ipf.)
3	4	7b	7	12	12	2	2	5	6
4	2	8	10 (nās)			3	3		
5	5	9	8			4a	1 (Cā-roots)		

imperative, which is difficult to classify because only few forms are attested, is presented in a very confusing way in the *Elementarbuch*, and it can hardly be rendered in an adequate manner here. More serious is the doubtful status of especially present and subjunctive 11 in both languages and subjunctive 7 in Tocharian B – classes that simply do not exist.⁴

However, the real problems are more basic. First, this scheme gives a very unrealistic and unnatural picture of the verb because it implicitly suggests that stems can pattern in $12 \times 11 \times 6 \times 6 = 4,752$ ways, or if the 4 classes of the preterite participle are added, 19,008. Of course, this is nonsense: the total number of verbs in both languages lies around 650. Admittedly, the number of different patterns is high, but many of the classes pattern in a predictable and logical way: there are much less possibilities than suggested by the scheme. An example of a logical pattern that is obscured in the scheme is that of a stem in *-a*, which is to be found under subjunctive 5 and preterite 1, whereas it is in fact *the same stem*.

Second, a large part of the stem classes in the *Elementarbuch* classification is not based on suffixes only, but on elements of the root, too: the suffixes have been separated wrongly. The same stem in *-a*, for example, is in many cases a root in *-a* without suffix: the recognition of such disyllabic roots ending in *-a* drastically simplifies the system. In addition, a number of other distinctions are actually due to properties of the first syllable of the root: for instance, preterite classes 2 and 4 are in complementary distribution, verbs with *ǝ*-vocalism in the first syllable taking preterite 2, and the ones with *a*-vocalism preterite 4.

Third, the principle that stems are formed from the root is in many cases demonstrably wrong and complicates matters unnecessarily: all preterites 4 are in fact *a*-preterites derived from subjunctives of class 9; likewise, all preterites 5 are derived from subjunctives 12.

Fourth, the system has no place for identical formations, a phenomenon especially frequent with presents and subjunctives. This failure leads to pointless statements like “subjunctives 9 pattern with presents 9”; well, they don’t – it is just the same stem.

In sum, the assumptions and principles of the *Elementarbuch* classification are not only impractical and difficult to learn, they are in many respects simply false. As the class number system is confusing and difficult to memorise, I will always cite the suffix in order to refer to stems, only occasionally accompanied by the class number.

2.1.2 PROBLEM

The two central questions of this chapter are 1) whether the subjunctive can be seen as a second present and 2) whether the subjunctive stem can be equated with the preterite stem. While these questions lead to a large number of smaller questions

⁴ Tocharian B subjunctive class 7 was eliminated by Hilmarsson (1991b).

about the formation of the subjunctive, they are both essential for the understanding of the verbal system as a whole. If the verb could *grosso modo* be characterised as a two stem system with a present, a preterite, and a mixed formation (a present from the preterite), this would simplify the description of the verb enormously. The idea of a basic two stem system will turn out to be a key concept in the historical account of the Tocharian subjunctive as well.

As they have identical endings, the present and the subjunctive can only be distinguished by their stems, and indeed they are in most cases. Therefore, as far as the endings are concerned, the subjunctive can be called a second present without reserve. The problem to be addressed in this chapter is whether the stem inventory of the present and the subjunctive is also the same. If the two stems are different, the present is in principle characterised by an extra suffix and it may be difficult to tell from a form in isolation whether it is a present or a subjunctive. Are those present-forming suffixes also found with subjunctives, or are they different? Are certain formations specific for presents and others for subjunctives? If there is an overlap in the suffix inventory, can those suffixes be combined?

The second question is intimately related to the first. There is little resemblance between the present and the preterite, neither in stem formation nor in the endings. Thus, if the present and the subjunctive make use of the same suffix inventory, the subjunctive and the preterite stems can hardly be identical. If, on the other hand, the formations of the subjunctive are different from those of the present, the preterite stem could theoretically be identical to that of the subjunctive.

2.1.3 METHOD

Although in this chapter a systematic inventory is made of various morphological markers such as palatalisation, accent, gradation, reduplication, and so on, the analysis is first and foremost based on suffixation, in which I follow the *Elementarbuch* (Krause and Thomas 1960). Unlike the *Elementarbuch*, and, for that matter, unlike most of the scholarly tradition, which is based on it, three other principles are applied: 1) suffixes are analysed according to their function, 2) stems may be derived from one another, and 3) stems may be identical.

One of the reasons for the wide variety of verbal suffixes in the *Elementarbuch* is that Krause and Thomas identify the function of a stem with the function of its suffix: if a stem is a subjunctive, its suffix is a subjunctive suffix. For instance, to explain the Tocharian B 3sg.prs. *aksaṣṣām* '(s)he announces' next to the 3sg.sbj. *ākṣām*, they posit a root *ak-* with a suffix *-sə³/se-* for the present stem, which would imply that the subjunctive has a suffix *-sə³/se-*.⁵ However, as it turns out, there are no

⁵ In fact, they have analysed the present in this way, whereas the subjunctive is assigned to class 2 with *ə/-* suffix (1960: 215). Evidently, such an analysis leads nowhere, since it leaves us with a miraculous difference between a root *ak-* for the present and a root *aks-* for the subjunctive (a notation *ak-s-* is no solution for this problem).

forms of the verb ‘announce’ without *-s-*, so that the root can easily be posited as *aks-*. Consequently, there is no need for a subjunctive suffix *-ssə/se-* (which, in fact, is not found elsewhere): the subjunctive stem can be analysed as *aks-ʔ/e-*. Likewise, the present can now be segmented as *aks-aşş-äṃ* with a suffix *-ssə/ske-* that surfaces as *-aşş-*. This suffix *-ssə/ske-* is the only distinction between the subjunctive and the present: its function is to form a present and therefore it is a present suffix.⁶

If the analysis of the *Elementarbuch* were to be carried through, the preterite *ākṣa* ‘(s)he announced’ would have to be a *ṣa*-preterite. Such a *ṣa*-preterite is a direct consequence of the principle that all stems are derived from a root *ak-*. However, the element *ṣ* was also seen in the subjunctive *ākṣäṃ*, where *ṃ* is the ending, so that the only element that distinguishes the preterite from the subjunctive is *a*. Thus, as soon as derivation among stems is allowed, the number of stem-forming elements can be reduced: the element *a* is found in a large number of other preterite classes as well.

In another verb, we find the element *-ssə/ske-*, which was just analysed as a present suffix, in a subjunctive: *ākläṣṣäṃ* ‘(s)he will teach’. However, since the present is also *ākläṣṣäṃ* ‘(s)he teaches’, it is not clear what the function of the *-ssə/ske-* suffix is in this form. In principle, two analyses are possible: 1) *-ssə/ske-* has two functions because it forms presents *and* presents with identical subjunctives, or 2) since we know that *-ssə/ske-* is a present suffix, we suppose that it distinguishes the present here as well. In the latter case, the subjunctive must be a secondary extension of the present, but without the explicit marking with a suffix. We can call such a derivation “zero-derivation”: the present is formed with the suffix *-ssə/ske-* and the subjunctive is formed from the present without a suffix or with a “zero suffix”.

In the Tocharian verb, both the analysis of a suffix like *-ssə/ske-* as a present-subjunctive suffix and the analysis of the subjunctive as “zero-derived” can be fruitful. In some cases, for instance, it seems that all verbs need to have a subjunctive because a certain category is derived from it; in others, the present-subjunctive category seems to be a real category, for instance because its suffixes are limited in number and zero-derivation is not possible with all present suffixes.

2.1.4 STRUCTURE

As an introduction to my morphological analysis, I present the categories of the verb in 2.2 (p 26), whereas the principles of the stem pattern are given in 2.3 (p 39). The different root types, which play an important role in verbal stem formation, are presented in 2.4 (p 44), and 2.5 (p 47) is devoted to the different types of morphological markers. Then, the system of stem derivation is analysed for the three most important stems – present, subjunctive and preterite – for Tocharian A in 2.6 (p 94)

⁶ On the basis of this example alone, it cannot be excluded that the same suffix distinguishes a subjunctive elsewhere. As it turns out, this suffix only forms presents, but there are other suffixes that may form presents in one category and subjunctives in another.

and for Tocharian B in 2.7 (p 117). The remaining formation patterns of the imperative (2.8, p 137) and the preterite participle (2.9, p 146) are followed by a short summary of the main findings in 2.10 (p 152).

2.2 CATEGORIES OF THE VERB⁷

Categories expressed by the verb are person and number of the subject (2.2.1, p 26), tense (2.2.2, p 31), aspect (2.2.3, p 32), mood (2.2.4, p 33), voice (2.2.5, p 36), and valency (2.2.6, p 37). Phonologically, a pronoun clitic is also part of the verb (2.2.7, p 38).

2.2.1 PERSON AND NUMBER OF THE SUBJECT

In the Tocharian languages, person and number of the subject are expressed in the finite verb. Both languages have a nominative-accusative system and so the agent of a transitive clause is marked in the same way as the subject of an intransitive clause. The subject can always, but need not be expressed explicitly elsewhere in the clause. Persons distinguished are the first, which is the speaker, the second, which is the person addressed, and the third, which is any subject outside the speech setting. Numbers distinguished are the singular, the dual and the plural. However, the dual is rare and not obligatory: apart from imperatives, only third person dual forms are attested, and normally the plural is used with dual subjects.

In neither language is the expression of person independent of that of number: the main locus of expression is the personal ending, which denotes person and number combined. However, the personal ending not only combines person and number, but it also expresses voice (see 2.2.5, p 36) and tense (see 2.2.2, p 31, and also 2.2.3, p 32 and 2.2.4, p 33). Thus, the personal ending carries a heavy functional load and the expression of person and number is not constant, but varies according to the other categories that are simultaneously expressed by the personal ending. If we disregard the dual for the moment, we can distinguish three sets of endings, which all distinguish the two numbers singular and plural, and the two voices active and middle. Two of these, the present set and the preterite set, distinguish all three persons; one, the imperative set, does not express person. Generally, the imperative always refers to the second person, but the Tocharian A imperative plural may also refer to the first. In Tocharian B, the present set is divided into three, where differences are confined to the singular active: the endings of the present and the subjunctive, those of the imperfect and the optative, which are identical formations, and those of the present-preterite, a formation that functions as a preterite but has the endings of a present. In both languages, the preterite set is divided into two: *a*-preterite endings vs *s*-preterite endings.

⁷ Cf in general Winter (1994a: 286-287).

The endings are given in the schemes below:

Tocharian A	present					
	active	middle				
1sg.	-m	-mār				
2	-t	-tār				
3	-š	-tār				
1pl.	-mäs	-mtār				
2	-c	-cār				
3	-ñc, -y	-ntār				
Tocharian A	preterite				imperative	
	active		middle		active	middle
	ā-prt.	s-prt.	ā-prt.	s-prt.		
1sg.	-ā, -wā	-wā, -w	-e, -we	-e		
2	-št	-št	-te	-te	-Ø	-ār
3	-Ø	-Ø	-t	-t		
2du.					-(y)nes	
3	-ynes					
1pl.	-mäs	-mäs	-mät	-mät		
2	-s	-s?	-c	-c	-s	-āc
3	-r	-r	-nt	-nt		
Tocharian B	present					
	active					middle
	prs.-sbj.	ipf.-opt.	prs.-prt.			
1sg.	-w	-m	-w			-mar
2	-tə	-tə	-Ø			-tar
3	-n	-Ø	-Ø			-tər
3du.	prs. -ten; sbj. -ys?					-ytər
1pl.	-mə	-mə	-mə			-mtər ⁸
2	-cer	-cer	-sə ⁹			-tər
3	-n	-n	-n			-ntər

⁸ The variants *-mttər* and *-mtte*, often cited, are in fact late; probably, they have to be read *-mntər* and *-mnte* respectively (Peyrot 2008a: 155-156).

⁹ Attested is only *latso* B33a8.

Tocharian B	preterite		middle	imperative	
	active			active	middle
	<i>a</i> -prt.	<i>s</i> -prt.			
1sg.	- <i>wa</i>	- <i>wa</i>	- <i>may</i>		
2	- <i>sta</i>	- <i>sta</i>	- <i>tay</i>	-Ø	- <i>r</i>
3	-Ø	-Ø	- <i>te</i>		
2du.					- <i>yt</i>
1pl.	- <i>mə</i>	- <i>mə</i>	- <i>mte</i> ⁸		
2	- <i>sə</i>	- <i>sə?</i>	- <i>t</i>	- <i>sə</i>	- <i>t</i>
3	- <i>re</i>	- <i>r</i>	- <i>nre</i>		

Peculiarities are the following:

dual

In both languages, the number of dual forms attested is limited and their analysis is far from certain. In Tocharian B, the ending *-ys* is attested in 3du. *stāmais* to sbj. {stā/ma-} ‘stand’ and 3du. *ltais* to prt. {lə^{co}/te-} ‘go out’, probably {stāma-ys} and {ləté-ys}, respectively. Apparently, *-tem* is used for presents and *-ys* for subjunctives, which would mean that the present-preterite of *lət*- ‘go out’ follows the subjunctive pattern instead of the present pattern. The 3du.mid. ending is attested in *tasaitār* of *tās*- ‘put’, which probably is to be analysed as {tasé-ytər} because the stem must be alternating: {ta^{sa}/se-}. The imperative ending is attested in arch. *pyamttisat* to the stem {pə-yam-sa-} to ‘do’, probably {pə-yām-sa-yt}. In Tocharian A, only two forms are attested: 3du.prt. *tāken(e)s* to {tākā-}, probably {tākā-yneš}, and du.ipv. *pines* ‘go!’. Since the root *y-* for ‘go’ contains a *y*, *pines* is ambiguous: it could either be {p(ā)-y-nes}, or it could have the same ending as *tākenes*: {p(ā)-y-yneš}.

TA 1sg.prt.

The distribution of the Tocharian 1sg.prt. forms is not easily presented in a scheme. In the *s*-preterite, the normal active ending is *-wā*, which has a rare relic variant *-u* {-w} (partly attested with the same verbs). In the preterite in *-ā* the normal active ending is *-ā*, which has a variant *-wā* that is attested only in imperfects and in reduplicated preterites (but for all verbs where it is attested, the more regular variant in *-ā* is always attested next to it). The long middle ending *-we* is only attested as a variant in imperfects. Additionally, we find *-we* in *yāmwe* ‘I did’ (~ *yāmpē*), the only 1sg. (middle) form of the *sā*-less preterite (next to the regular *s*-preterite ending *-e* in *yāmtse* ‘id’); perhaps *-we* is regular in this subcategory (on these forms, see Winter 1965b: 206-209; Schmidt and Winter 1992).

a or *e* to the ending

In both languages, there are some endings that are difficult to separate from the preceding suffix. This ambiguity arises in *x*|Ø-root presents or subjunctives, and in

presents or subjunctives with the suffix TA {^ä/_a}, TB {^ə/_e}, where we find the *a* (TA) or *e* (TB) of the ^ä/_a- or ^ə/_e-suffix also in some endings of the *x|Ø*-root presents or subjunctives. The endings concerned are the 1sg., 1pl., and 3pl. active.

“mobile” *ā* in TA

In Tocharian A, there is variation between *Ø* and *ā* (or weakened *a*) in the preterite, where only the suffixed 3sg.act. ends in *-ā* (or weakened *a*), e.g. unsuffixed *tāk* ‘it was’ vs suffixed *tākaṃ* ‘it was to her/ him’. Since the final *a* is found in all other forms of *tākā-*, it seems preferable to analyse *tākaṃ* as *tāka-ṃ* and take *tāk* as a special form of underlying {*tākā-Ø*}; forms such as the 2sg. *tākašt*, 3pl. *tākar* would then be {*tākā-št*} and {*tākā-r*}, respectively. The alternative would be to set up the stem as {*tāk-*} and analyse *tākašt* and *tākar* as {*tāk-āšt*} and {*tāk-ār*} instead. The former analysis, with the *a* or *ā* as a part of the stem and not of the ending, has the advantage that the endings of the *s*-preterite are the same as those of the *ā*-prt., e.g. 2sg. *yāmāšt* {*yām-št*} ‘you did’ and 3pl. *yāmār* {*yām-r*} ‘they did’. This analysis also takes the *-s* of the unsuffixed 3sg.act. of the *s*-preterite as a shortened form of the *sā*-suffix found before a suffixed pronoun and in the middle, e.g. *yāmās* {*yām-sā-Ø*} ‘(s)he did’ vs *yāmtsā-ṃ* {*yām-sā-n*} ‘(s)he did it’ or ‘(s)he did for her/ him’ and 3sg.mid. *yāmtsāt* {*yām-sā-t*} ‘(s)he did for herself/ himself’.

The only category where this analysis encounters problems is the imperative (see e.g. Winter 1994b: 405; 1994a: 304). Whereas the singular *pākras* of *krāsā-* ‘know’ could still be {*p-krāsā-Ø*} with the same deletion rule as for the preterite, the plural *pkārsās* clearly shows that the stem is {*p-krās-*} with an ending *-s*, so that the singular must also be {*p-kras-Ø*}. This implies that the middle endings are {-*ār*} and {-*āc*} (not {-*r*} and {-*c*}), but the analysis of the suffixed singular becomes difficult. For instance, we find *pkānāni* and *pyāmām*, which have to be analysed as {*p-kan-ā-nāy*} and {*p-yām-ā-n*} with an extra *ā*, or as {*p-kan-āñāy*} and {*p-yām-ān*} with special imperative variants for the suffixed pronouns. Probably, an analysis with an extra *ā* is preferable, since we even find one set of variants of this type: *pyāmāni* without *ā* vs *pyāmām* with *ā* (without distinguishable difference in meaning). The special character of the *ā* in the endings of the imperative is also shown by its stability, i.e. it is never weakened to *a* or *ä* as in the preterite or subjunctive.

TA 3pl.prs. *-y*

By far the most frequent 3pl.prs. ending in Tocharian A is *-ñc*, which changes a preceding *a* or *ā* to *e*, and an *ä* to <*i*>, e.g. *tākeñc* {*tākā-ñc*} ‘they will be’ or *tränkiñc* {*tränk(ä)-ñc*} ‘they say’. Next to the *ñc*-endings, we find endings without *ñc*, but with the colouring that it brings along, so that the only possible analysis is *y* (as it is presented in the table above), e.g. *tāke* {*tākā-y*} and *tränki* {*tränk(ä)-y*}.

Apart from the personal ending, person and number may be expressed additionally by changes of the stem. For instance, TA 3sg.prs.mid. *eṃtsāštār* {*ent^s-šā-tr*} ‘(s)he

takes' and 3pl.prs.mid. *em̐tssanträ* {ent^s-sa-ntr} 'they take' are not only distinguished by their different endings *-tär* and *-nträ*, but also by a difference in the present suffix: 3sg.prs.mid. *-šä-* vs 3pl.prs.mid. *-sa-*. Likewise, TA 3sg.sbj. *kalkaš* {kalka-š} '(s)he will go' and 3pl.sbj. *kälkeñc* {kälkâ-ñc} 'they will go' are distinguished both by the endings *-š* and *-ñc*, and the difference in vowel grade of the stem: *kalka-* vs *kälke-* or *kälkâ-*.

The same situation is found in Tocharian B, and there it plays an even more important role. Although some Tocharian A endings are homophonous, as for instance the 2sg.prs.act. and the 3sg.prt.mid, which are both *-t*, the endings of one set are always neatly distinct. In Tocharian B, however, homophonous endings are also found within sets: the 3sg.prs. and the 3pl.prs. in *-n*, the 3sg.prs.mid. and the 2pl.prs.mid. in *-tär* and the 1sg.ipf.-opt. and the 1pl.ipf.opt. in *-m(ə)*.¹⁰ In some cases, these forms are indistinguishable indeed, but in others, the additional stem changes can make the difference. In Tocharian B, these changes are therefore not always additional in the literal sense: they distinguish different persons and numbers, i.e. in practice only singular forms from plural forms with homophonous endings. For instance, *tärkanam* must be a third person present form of 'take', but the number is ambiguous. In the corresponding subjunctive forms, the numbers are distinguished by the vowel grade of the root: 3sg.sbj. *tärkam* {tärka-n} vs 3pl.sbj. *tarkam* {tärka-n}. In many cases, it is the present suffix that makes the difference: 3sg.prs. *weššäm* '(s)he says' vs 3pl.prs. *weskem* 'they say' are distinguished only by the present suffix *-ššə-* vs *-ske-*. The homophonous *m*-endings for the first person are only found together in the imperfect-optative and in *yə-* 'go'. In the imperfect-optative, the 1pl. ending always combines with the suffix variant *-əye-*, whereas the 1sg. is found after *-əy-*, so that they could alternatively be analysed as *-m* and *-em*, respectively. In the verb for 'go', they are distinct because the 1pl. has a special root variant: the 1sg. is {yə-m}, the 1pl. {yəne-mə} or {yən-emə}. The endings *-tär* of the 3sg. and 2pl. middle always yield homophonous forms because the stem alternations in the root and the suffix that sometimes disambiguate the other homophonous endings are not found among the two variants of *-tär*. Since the distinctions between homophonous endings of different sets are fully dependent on the stems they are used with, these are not discussed here, but in 2.5 (especially 2.5.2, p 56 and 2.5.4, p 64), and in 2.6 (p 94) and 2.7 (p 117).

In both languages, the main verb of a clause can also be a nominal (or infinite) form; principally a gerund or a participle. As nominal forms, they express relations totally different from finite verb forms. The gerunds, for instance, agree with the subject when intransitive and with the object when transitive, whereas the preterite participle may agree with the subject or the object; the present participle expresses

¹⁰ On the basis of the variants of the first person endings elsewhere, we should probably posit the 1sg. as *-m* and the 1pl. as *-mə*, since only the latter may receive a mobile *-o*. As far as I could check, this longer 1pl. ending *-mo* is not attested for the imperfect-optative.

no agreement. If agreement is expressed, it conforms to the categories of the nominal system: the preterite participle and the gerunds are inflected for number, gender and case.

2.2.2 TENSE¹¹

Tense, aspect and mood are all correlated in Tocharian and the meaning of the different categories is highly dependent on their syntactic function. The aim of this section and the following about aspect and mood is to give the general impression that is needed for a rough understanding of the verbal system; details can be found in chapter 3.

In both languages, tenses distinguished are present and past as well as future, as argued in chapter 3. Present tense is expressed by the present; past tense by the preterite and the imperfect. The subjunctive denotes future events, but it also has other functions, notably in subclauses. The present tense is hardly used to denote future or past events, but it may refer to “tenseless” events in general statements. The preterite may sometimes have present reference; the difference with the category present is then one of aspect.

As concerns the formal expression of tense, the two languages diverge. In Tocharian A, both preterite and imperfect take the preterite endings, which are exclusively used in these two categories. Thus, there is a one-to-one correspondence between the preterite endings and past tense. The contrast between the subjunctive (in future function) and the present is expressed by a difference in stem: the endings of present and subjunctive are identical, so that one could say that they have non-past reference.

In Tocharian B, the situation is more complicated. In this language, the preterite endings are exclusively used with the preterite, so that they are clear markers of past tense. However, the imperfect takes different endings and therefore there is no one-to-one correspondence between the preterite endings and past tense. The endings of the imperfect belong to the present set and within that set to the imperfect-optative subgroup, used with the imperfect and the optative. Although the optative is sometimes used in past contexts, this is clearly not the core meaning of that category. Accordingly, the imperfect-optative endings are no tense markers: in the case of the imperfect, tense is expressed by the combination of the endings and the imperfect-optative suffix on the one hand, and the difference in stem between the imperfect

¹¹ It is very difficult to find good examples showing whether the tense of a complement clause is defined by the time of utterance (absolute tense, e.g. Du. *ik wist* [prt.] *dat hij ging* [prt.] ‘I knew he went’) or by the time of reference (relative tense, e.g. Gm. *ich wußte* [prt.], *dass er geht* [prs.] ‘id’). With verbs of saying, thinking etc the content is in Tocharian normally expressed as direct speech, i.e. the typical complement clauses are simply not there. For comparison clauses in Tocharian A that seem to have relative tense, see 3.3.9 (p 208); for a complex construction in Tocharian B where the tenses seem to be relative, see 3.7.1 (p 276).

(formed from the present stem) and the optative (formed from the subjunctive stem) on the other. Since the present and the subjunctive stem need not be formally distinct, imperfect and optative may be identical in form, too.

The expression of tense is in Tocharian B further blurred by the existence of marginal mixed categories. The first is best termed the present-preterite because it functions as a preterite, but it has morphological features of the present-subjunctive.¹² The endings are those of the present set, even though the 2sg. has a unique zero ending and the 2pl. is taken from the preterite set; however, the stem is clearly not the present stem, although it is difficult to say what other stem it resembles most because of the small number of forms. The second mixed formation is even more hidden: it is the copula 3sg. *ste*, 3pl. *skente*. The copula has a stem that looks like a present stem, i.e. {*ssə*/*ske*-} (with *ssə*- turning into *s*-), while the endings are the ones of the preterite middle, i.e. 3sg.mid. {-te}, 3pl.mid. {-nte}.

The nominal forms may have tense reference, too. The preterite participle may denote past events, although it seems to be used with present reference even more often than the finite preterite. In principle, the present participle denotes present events, but in subclauses it also expresses contemporaneity with the event of the main clause. The subjunctive gerund mostly refers to future events, but the core meaning of this form is possibility: the future notion is derived from it through inference. The present gerund expresses necessity, which may be close to the notion of present tense in the sense that according to the speaker the event should follow shortly after the moment of speaking, but taken by itself the present gerund does not have present tense reference.

To sum up, both languages have a difference between present and past tense, but the expression of this distinction is straightforward only in Tocharian A: in Tocharian B there are several different kinds of morphological marking. There are no different degrees of remoteness of the past tense. Future tense is expressed by the subjunctive, which is also used in other functions in subclauses.

2.2.3 ASPECT¹³

In Tocharian, the most important expression of aspect is found in the past tense. Both languages have two past tenses, namely a preterite and an imperfect, and the difference between the two is one of aspect. However, it is difficult to draw a sharp distinction between the two. First of all, the preterite is used much more often than the imperfect and it seems to have a certain default value, whereas the imperfect is the marked variant. The imperfect has two uses which can be defined as imperfective: it is used to describe backgrounds and states of affairs, and it may

¹² One may compare the Germanic preterite-present, which functions as a present but has preterite features in its morphology.

¹³ For the syntax of the past tenses, cf Thomas (1957).

denote a repeated event. In contrast, the preterite is preferred for isolated and foreground events and consecutive actions. If the two are used together in a narrative, background information is in the imperfect whereas focal events are in the preterite.

An additional value of the preterite is resultative, i.e. it may depict a given present situation as still relevant although it is the result of a past event. This resultative use blurs the distinction between past and present tense: since the focus is on the present situation, the resultative preterite has present tense reference. In resultative use, the preterite differs from the present on the aspectual level: the present denotes a present event with indefinite boundaries, whereas the preterite denotes a present state resulting from a recent change. In contrast, the imperfect is never used to denote present events. With the preterite participle, the resultative meaning is even more salient than with the finite preterite. If the preterite participle is used with an imperfect copula, it denotes a state that prevailed in the past.

The morphological expression of the distinction preterite versus imperfect is primarily made by means of different stems. In Tocharian A, imperfect and preterite have the same endings (see also 2.2.1, p 21), so that the two are distinguished only by a difference in stem. In Tocharian B, however, the endings are taken from different sets. Next to the different endings, the two categories are also distinguished by different stems. In both languages, the preterite and imperfect stems are not distinguished by a simple morphological contrast, but by a double one: the preterite is formed from the basic preterite stem, whereas the imperfect is formed from the basic present stem extended with an extra suffix. In Tocharian A, a marginal category is formed by imperfects that are derived from the root by means of internal stem change.

2.2.4 MOOD

There are two primary modal categories in Tocharian: the imperative and the optative, which are both deontic in principle. That is, the imperative and the optative denote irreal events that the subject should actualise according to the speaker, a third person or external circumstances, comparable to English *do!*, *may (s)he do* or *(s)he should do*. Principally in subclauses, the optative has epistemic functions, too: it may express the probability or possibility of an irreal event, comparable to English *(s)he may do* or *(s)he could do*.

With the imperative, the deontic source is the speaker: it is a command or a request of the speaker. The subject of the imperative is always the addressee, but it is not explicitly expressed. Thus, there are only second person imperative forms, and it is not necessary to indicate person when citing imperative forms. The only exception is found in Tocharian A, where plural imperatives can be used for the first person too, thus not only denoting more than one addressee, but including the speaker him or herself. However, the first person plural imperative has no special formal person marking, as it is a normal plural imperative form. The imperative cannot be negated:

with a negation, the present or the subjunctive is used. The present is used when the event has already started and should stop (INHIBITIVE), whereas the subjunctive is used for a future event (PREVENTIVE).

With the optative, the deontic source is either the speaker or external circumstances. If the deontic source is the speaker, the difference with the imperative is that the claim is less strong. In other words, the imperative is closer to a command and the optative closer to a wish, i.e. literally OPTATIVE. If the deontic source is formed by external circumstances, we can call its function OBLIGATIVE. In OBLIGATIVE function, the speaker plays an important role too. In the first place, the external circumstances that require the subject to carry out a certain action are reported by the speaker, and in this way it is the speaker who directs the subject, although the fundamental motives are external. In the second place, it is of course the speaker who selects and interprets these external motives, so that the influence of the speaker on the pragmatic end result may in fact be considerable. However, this influence is not part of the core meaning of the optative. Next to its deontic function, the optative has epistemic functions, which will be discussed below.

In main clauses, the subjunctive denotes future tense and it is not modal. However, its uses in subclauses could perhaps be analysed as instances of epistemic modality: the subclause subjunctive denotes decreased certainty about the truth of a proposition as evaluated by the speaker. Examples of these uncertainty uses are REAL CONDITIONAL, i.e. *if he does*, CONCESSIVE, i.e. *even though he does* and ITERATIVE, i.e. *each times he does*; for a detailed discussion of these subclause uses, see chapter 3, especially 3.2 (p 166) on Tocharian A and 3.6 (p 250) on Tocharian B.

The non-deontic, epistemic uses of the optative are best seen as extensions of the subclause subjunctive system. Like the subjunctive, its main functions in subclauses are hypothetical, concessive and iterative. With conditionals, the truth claim of the optative is weaker than the subjunctive: instead of a real conditional it denotes an IRREAL CONDITIONAL, i.e. *if he did* in conditional clauses. Likewise, the optative in main clauses does not denote future, but an uncertain future event: DUBITATIVE, i.e. *he could do*. The concessive and iterative optative is limited to past tense use and it is parallel to the subjunctive: while the subjunctive is used with present tense main clauses, the optative is used with past tense main clauses.

Apart from the primary modals listed above, there are also modal nominal forms and compound modals. The modal nominal forms are the present and the subjunctive gerunds.¹⁴ Although the finite present is not a modal category, its gerund definitely is (even though a relationship with present tense is imaginable): the present gerund denotes that an event is to take place on external, mostly objective grounds. The grounds can be moral, but according to generally accepted principles, and in most cases the event is to the benefit of the agent, or at least the consequences of the event will benefit the agent. As pointed out above, the gerund may morpho-

¹⁴ For the gerunds, cf in particular Thomas (1952).

logically agree with the patient; indeed, it seems that the deontic value is also directed towards the patient: the focus is on the event that should be carried out, not on any particular agent.

The subjunctive gerund is also modal, but not deontic: it denotes the possibility of an event. This possibility is defined as favourable circumstances for the agent to carry out the event, or rather favourable circumstances for the event to be carried out. If the agent is explicit, possibility and ability may be difficult to distinguish, but the ability of the agent to carry out the event is certainly a special case of favourable circumstances. Permission does not belong to the semantic core of the subjunctive gerund, as it can be seen as a special case of favourable circumstances.

There are many combinations possible of modal nominal forms with a copula or nominal forms with a modal copula, but most of them are not real compound tenses, aspects or moods (see chapter 3, especially 3.4, p 216, for Tocharian A and 3.7, p 276, for Tocharian B). There is only one frequent and important mood, which is formed by a combination of the subjunctive gerund with an imperfect copula. This construction is to be compared syntactically with the conditional subjunctive and optative. While the subjunctive denotes a probable condition, and the optative a possible, but not probable one, the subjunctive gerund with an imperfect copula in principle expresses a purely theoretical conditional that is not possible. The impossibility of the conditional is usually caused by its situation in the past and it is in principle contrary to fact, i.e. COUNTERFACTUAL; however, there is at least one example where the construction expresses only a very low probability, *not* counterfactuality (see 3.7.1, p 276).

	deontic	epistemic	
		(main clause)	(subclause)
imperative	IMPERATIVE (command)		
optative	OPTATIVE (wish); OBLIGATIVE (obligation)	DUBITATIVE (doubt)	IRREAL CONDITIONAL; PAST ITERATIVE
subjunctive	PREVENTIVE (negative command)	FUTURE	REAL CONDITIONAL; CONCESSIVE; PRESENT ITERATIVE
present	INHIBITIVE (negative command)		
prs.ger.	NECESSITY		
sbj.ger.		POSSIBILITY	
sbj.ger. + ipf.cop.		COUNTERFACTUAL or LOW PROBABILITY	COUNTERFACTUAL CONDITIONAL

To sum up, the optative, being both deontic and epistemic, denotes wishes and obligations (OPTATIVE and OBLIGATIVE), and non-actual and improbable events (DUBITATIVE, IRREAL CONDITIONAL, PAST ITERATIVE); the imperative is deontic and is used for commands; the subjunctive denotes future tense in main clauses, while in subclauses it is used for uncertain but probable events (such as REAL CONDITIONAL, CONCESSIVE and PRESENT ITERATIVE), which could be classified as epistemic modality.

The morphological marking of mood is straightforward. The imperative has its own stem and its own set of endings; the subjunctive has its own stem and present endings; the optative is derived from the subjunctive basic stem by means of a suffix and has present endings (in Tocharian B of the imperfect-optative subset). The gerunds are formed from the present and subjunctive basic stems respectively, by means of the gerund suffix.

2.2.5 VOICE¹⁵

In Tocharian, all finite verb forms are marked for voice, which has a binary opposition: active versus middle. In contrast, all infinite forms have no such marking. Most verbs do not have contrastive voice, as they are either active only, middle only, or medio-active. The medio-active is a special morphological category where some stems are active only (mostly subjunctive, preterite and imperative; otherwise preterite and imperative) and some are middle only (mostly the present; otherwise present and subjunctive). Only in a small group of verbs do we find a contrast between active and middle for the same stem.

Although transitivity and voice interfere in many ways, they do not exclude each other: all four voice types, i.e. active only, middle only, medio-active, and active and middle, may be intransitive or transitive. However, among verbs with contrastive voice, intransitive verbs, i.e. verbs that have an intransitive *active* inflexion, are extremely rare, see ‘come’ below. In verbs with contrastive voice, the middle is mostly a passive or an indirect reflexive; we also find MIDDLE, i.e. intransitive events without agent, like ‘perish’. In some cases, the semantic difference between active and middle is not evident from the texts, but a close relationship between the event and the subject seems to be a constant element. The reflexive is mostly indirect, but it can also be direct, or it can express a genitive relation between the subject and the object – this range of relations is reminiscent of the situation with the pronoun clitics, which are discussed below.

It is important to distinguish simple verbs from phrasal verbs, i.e. verbs that combine with an invariable element, in Tocharian usually an (almost) incorporated object. For instance, TB *tārka-* ‘let go’ is active only, whereas the phrasal verb *wiyai tārka-* ‘frighten’ (?) is middle only. TB *kəla-* and the phrasal verb *epiyac kəla-* have

¹⁵ For the middle in general, cf Schmidt (1974).

both contrastive voice, but with a different function: *kāla-* has a semantic difference between ‘bring’ in the active and ‘bring along’ in the middle, whereas *epiyac kāla-* has a valency difference between transitive ‘remind’ in the active and intransitive ‘remember’ in the middle.¹⁶ Probably, the middle of the only certain example of an intransitive verb with contrastive voice, ‘come’, is to be analysed as a (different) phrasal verb, too: it always combines with TB *še, šesa*, TA *šyak* to mean ‘come together’.

In the other categories, i.e. active only, middle only and medio-active, it seems that only some tendencies can be observed. Active only verbs are more often transitive, and middle only verbs are more often intransitive, but as indicated above, all combinations are possible. That the voice type is at least to a certain extent independent from the syntax and semantics of the verb, is for instance shown by ‘stand’, which is suppletive in both languages: TA present *kāl-*, other stems *štāmā-*, TB present *kāl-*, other stems *stāma-*; the root that supplies the present is middle only, but the root that supplies the other stems is active only. The reverse is found with TB ‘carry’, which has the active only present *pər-*, but the middle only preterite *kama-*. Thus, voice is not (purely) grammatical when it is not contrastive, but rather part of the lexicon.

2.2.6 VALENCY

In the Tocharian verb, valency plays an important role. However, it has no simple expression, but is reflected in a number of other distinctions, which I will mention briefly here. Valency may be marked on three levels: it may be marked on the stem, on the ending, or by means of derivation. Stem marking is the most complicated of the three because there are several different types of marking that are not obligatory on the one hand, and not exclusive on the other; since stem marking presupposes an analysis of the stem system, it is not discussed here. Ending marking of valency functions by means of voice, i.e. valency is not directly marked by the endings, but voice is correlated with valency: the middle, for instance, may – but need not – decrease valency (see above for more details).

An important feature of the Tocharian verbal system is derivation marking, which may be described as a fourfold system. In the traditional analysis,¹⁷ derivation marking is a system of a base verb with up to two fully-fledged derived causative verbs, namely *s*-causatives and *sk*-causatives. It was thought that the base verb is intransitive and the causatives increase its valency, without there being a clear distinction between *s*-causatives and *sk*-causatives (in TA, *s*-causatives with reduplicated preterites). However, it seems that the actual derivation patterns are more

¹⁶ In Dutch and German, for instance, this set is transitive vs reflexive, e.g. Du. *herinneren* ‘remind’ vs reflexive *zich herinneren* ‘remember’.

¹⁷ Cf Sieg, Siegling and Schulze (1931), Krause (1952), Krause and Thomas (1960).

complicated. First of all, many “base verbs” are of the same regular type and so they are clearly part of the derivation system, but perhaps not the starting point, the base: instead, they could be derived intransitives. Second, although the *sk*-causatives must be derived indeed, it is not obvious that the *s*-causatives are. Third, some of these causatives and intransitives are related to verbs of different types, which yields the fourfold system: *s*-causatives, *sk*-causatives (TA *s*-causatives with reduplicated preterites), intransitives and other verbs.

2.2.7 PRONOUN SUFFIX¹⁸

The Tocharian pronoun suffixes are different from all categories discussed up to now because they are not part of the verb proper, but of the pronoun system. However, they are closer to the verb than to any other category because they are part of the argument structure of the verb, and they can only be suffixed to the finite verb, so that they form one (accentual) word with the finite verb.

Whereas the endings of the finite verb agree with the subject, the pronoun suffixes agree with an object. There is only one set, in which the two functions of indirect and direct object are left undistinguished. Since in Tocharian there is no difference between genitive and dative, the indirect object must be understood as covering genitive relations, too, the most important being possession and agency (with passives). Although an event may have up to two arguments other than the subject, only one can be marked with a pronoun suffix. Thus, it may be impossible to tell on the basis of the form only what a pronoun suffix refers to.

The shapes of the pronoun suffixes are the following (person is not distinguished in the plural number):

	1sg.	2sg.	3sg.	pl.
Tocharian A	- <i>ñi</i> {- <i>ñäy</i> }	- <i>ci</i> {- <i>cäy</i> }	- <i>n</i>	- <i>m</i>
Tocharian B	- <i>ñ</i>	- <i>c</i>	- <i>ne</i>	- <i>me</i>

The plural form stands out within Tocharian because it has no distinction for person: for this asymmetry there is no parallel either in the verb nor in the pronominal system. To stress the possible ambiguities of this system, it may be helpful to note that TA *-m*, TB *-me* may be translated with ‘us’, ‘you’, ‘them’, or ‘to us’, ‘to you’, ‘to them’, or ‘of us’, ‘of you’, ‘of them’.

The pronoun suffixes differ from the personal endings in that they are not obligatory and their referents are not normally explicitly expressed elsewhere in the clause, whereas personal endings may be combined with explicitly expressed subjects. There seems to be a certain functional overlap between the pronoun suffixes and the middle endings, since the middle endings may express the same

¹⁸ On the syntax of the pronoun suffix, cf Carling (2006).

relations: direct object, indirect object and possessive. There are also differences, however: the middle endings cannot refer to the agent of a passive and they are of course coreferential with the subject, whereas the pronoun suffixes are used exactly for non-subject referents. Pronoun suffixes can be combined with middle endings as the direct object when the verb is transitive (principally with middle only verbs), or as the agent when the verb is passive (this applies mainly to verbs with distinctive voice), or as the indirect object with intransitive and passive middles.

2.3 THE STEM PATTERN

In this section, I describe the morphological lay-out of the Tocharian verb in general; particular stem classes are discussed in sections 2.6-2.7 (p 94). First the basic stems are discussed (2.3.1), then the derived stems and forms (2.3.2, p 40).

2.3.1 BASIC STEMS

The five basic stems are the present, subjunctive, preterite, preterite participle and imperative stems. These can be called basic stems because they are not derived by simple morphological patterns, but make up a complicated system of different stem patterns themselves. The derived stems and forms, on the other hand, are formed from the basic stems with invariable suffixes following predictable patterns.

The basic stems are named after the basic categories formed from them. Thus, the present is formed from the present stem, the subjunctive from the subjunctive stem, the preterite from the preterite stem, the preterite participle from the preterite participle stem and the imperative from the imperative stem. An example of a complete set of stems is TA *kräsā-*, TB *kārsa-*, both ‘know’:

	TA	TB
present	<i>krāsnā-</i>	<i>kārsāna-</i>
subjunctive	<i>krasa-</i> , <i>krāsā-</i>	<i>kārsa-</i> , <i>kārsa-</i>
preterite	<i>śrāsā-</i> , <i>krasa-</i> , <i>krāsā-</i>	<i>śārsā-</i> , <i>kārsā-</i>
preterite participle	<i>krāso</i>	<i>kārsāw-</i> , <i>kārsō-</i>
imperative	<i>-kras-</i> , <i>-krās-</i>	<i>-karsa-</i> , <i>-kārsa-</i>

The finite forms are obtained by adding the endings, and the imperative prefix in the imperative in addition, e.g.: 3sg.prs. TA {*krāsnā-š*} *kārsnāš*, TB {*kārsāna-n*} *kārsanaṃ*; 3sg.sbj. TA {*krasa-š*} *krasaš*, TB {*kārsa-n*} *kārsaṃ*; 3sg.prt. TA {*śrāsā-Ø*} *śārs*, TB {*śārsā-Ø*} *śārsa*; sg.ipv. TA {*pā-kras-Ø*} *pākras*, TB {*pā-karsa-Ø*} *pkārsa*. The preterite participle is a nominal form: nom.sg.m. TA {*krāso-Ø*} *kārso*, TB {*kārsāw-Ø*} *kārsau*; obl.sg.m. TA {*krāso-nt*} *kārsont*, TB {*kārsō-Ø*} *kārsō*.

If we look at the shape of the stems, we see that the affinity between subjunctive, preterite and imperative is much larger than that of any of these to the present. Although each of the three non-present stems – subjunctive, preterite and imperative

– has its peculiarities, there are several overlaps: the root shapes *krasa-* and *kärsä-* occur in all three in TA, and *kärsa-* in all three in TB. Moreover, TA *kärs-* and TB *kärs-* recur in the preterite participle. The present stands out in having a nasal *n* that is not found in the other stems.

This rough dichotomy between present stem on the one hand and subjunctive, preterite, imperative and preterite participle stems on the other is found with many verbs. It is also found, for instance, in suppletive verbs such as ‘stand’:

	TA	TB
present	<i>kälā/a-</i>	<i>kälā/e-</i>
subjunctive	<i>štama-, štāmā-</i>	<i>stāma-, stāma-</i>
preterite	<i>šāmā-, štama-</i>	<i>šcāmā-</i>
preterite participle	<i>štāmo</i>	<i>stāmāw-, stāmoš-</i>
imperative	<i>-štam-, -štām-</i>	<i>-stama-*, -stāma-*</i>

In this case, the present deviates in having its own root, whereas all other stems are formed from one other root. The exceptions to the general pattern that all non-present stems go together form a current theme throughout this study; the interplay of the non-present stems and their relation to the present stem are discussed in this chapter (sections 2.6-2.7, p 94).

2.3.2 DERIVED STEMS

From the five basic stems all other verbal forms can be derived. The derived stems are the imperfect and the optative stems, from which – naturally – the imperfect and the optative are formed.

In Tocharian B, there is one suffix for the imperfect and the optative, which is {-’äy-}. The ipf.-opt. suffix is added to the basic present stem to form the imperfect stem, and to the basic subjunctive stem to form the optative stem, e.g. prs. {*kärsäna-*} → ipf. {*kärsäna-’äy-*}; sbj. {*kärsa-, kärsa-*} → opt. {*kärsa-’äy-*}. A few morphophonological rules are needed to obtain the ultimate outcome, one of which is *a’äy* → *öy*. Accordingly, the 3sg. forms are ipf. *kärsanoy* {*kärsäna-’äy-Ø*} and opt. *karsoy* {*kärsa-’äy-Ø*}. The other rules are *e’äy* → *äy* and *o’äy* → *äy* (the ’ denotes morphological palatalisation, a phenomenon that is discussed below in 2.5.4, p 64). If the subjunctive stem has two variants, it is normally the weak variant, i.e. the variant with *ä*-vocalism in the root, that is taken as a basis for the optative stem. There are two irregular imperfects that are discussed further below.

In Tocharian A, imperfect and optative are formed differently. The optative is formed according to a regular pattern that is similar to the one observed for Tocharian B. The optative suffix {-’äy-} is added to the subjunctive stem, and likewise to the weak variant, if there are two variants. The morphophonological rules of Tocharian A are comparable to Tocharian B, but not identical: *a’äy* and *ā’äy* both combine to give simple (non-palatalising) *äy*.

As in Tocharian B, the Tocharian A imperfect is mostly formed from the present stem. The most frequent type is formed with the suffix {-’ā-}, the only morphophonological rule being that any *a* or *ā* of the present stem is deleted, or: *a’ā* → ’ā and *ā’ā* → ’ā. If the present stem has an alternating suffix like {-ṣā/ṣa-}, the result is e.g. -ṣā-.

Next to this frequent type, there is a rare type that could be called “strong” because it is formed by root-internal changes. It has initial palatalisation if possible, a root vowel *ā*, and a suffix *a* (certainly a weakened *ā*), and it seems to be formed to the root (or to the subjunctive or the preterite; at least typical present markers are not found): ipf. {cārkā-} to *tārkā-* ‘let go’ (prs. {tārnā-}, sbj. {tarkā-, tārkā-}, prt. {cārkā-, tarkā-}). The only examples of a strong imperfect formed to the present are {pārā-} to *pār-* ‘carry’ and {lākā-} to *lākā-* ‘see’, both suppletive: ‘carry’ has the sbj. {kāmā-}, ‘see’ has the sbj. {pālkā-} etc). There are also some formations that function as imperfects, but are formally identical to preterites. As these occur only in suppletive systems, their formation is analysed as if they were preterites.

In both languages an aberrant type is attested in two verbs, namely ‘be’ and ‘go’. In the case of ‘go’, there is obviously a formal relation between the present and the imperfect, but the imperfect of ‘be’ is suppletive; the root is not attested otherwise. The present stems of ‘go’ are TA {y-}, TB {y-}, and the imperfect stems are TA {ye-}, TB {yey-}; apparently, the suffix is {-e-} in Tocharian A and {-ey-} in Tocharian B. In Tocharian B, it inflects as a normal imperfect, but in Tocharian A it takes present endings, whereas all other imperfects take preterite endings. In both languages, ‘be’ is exactly parallel: TA {ṣe-}, TB {ṣey-}.

2.3.3 DERIVED FORMS

The inventory and the distribution of the infinite forms is nearly the same in Tocharian A and Tocharian B; the only exception is the infinitive, which is derived from the present stem in Tocharian A, but from the subjunctive stem in Tocharian B.

From the present stem are derived:

- the present gerund, which is formed with the suffix {-l} in TA, with {-lle} in TB, from the TA *ā*- or TB *ə*-variant of presents with an alternating suffix in *’ā/a* or *’ə/e*, respectively;
- the present participle, which is formed with the suffix {-mān} in TA, with {-mane} in TB, from the TA *a*- or TB *e*-variant of presents with an alternating suffix;
- several different agent nouns, all formed from the TA *ā*- or TB *ə*-variant of presents with an alternating suffix;
- a verbal adjective in TB *-mo*, from the *ə*-variant of presents with an alternating suffix;

- the TA infinitive with the suffix {-t^säy}, formed from the *ä*-variant of presents with an alternating suffix.

From the subjunctive stem are derived:

- the subjunctive gerund, which is formed with the suffix {-l} in TA, with {-lle} in TB, from the TA *ä*- or TB *ə*-variant of subjunctives with an alternating suffix, and from the *ə*- or *ä*-grade variant of subjunctives with two root variants;
- the verbal noun, which is derived from the subjunctive gerund, in TA with the suffix {-une}, in TB with {-ññe}, combining to {-lune} and {-lñe} (rarely {-lləññe}) respectively;
- the agent noun in {-əwca} in TB, from the *ə*-variant of subjunctives with an alternating suffix;
- the privative in TA and TB, which is formed with a circumfix consisting of a prefix TA {an-}, TB {en-} (which undergoes heavy changes to TA {a-, ā-}, and TB {e-, on-, an-, a-}), and a suffix TA {-t}, TB {-tte}, from the TA *ä*- or TB *ə*-variant of subjunctives with an alternating suffix;
- the TB infinitive with the suffix {-t^säy}, formed from the *ə*-variant of subjunctives with an alternating suffix, and from the *ə*-grade variant of subjunctives with two root variants.

From the preterite participle is derived:

- the abstract in TA {-r}, TB {-r}, in TB from the stem found in e.g. the obl.sg.m. The abstract is often used with the ablative suffix in both languages, and also with the perlativ in TA, to form an absolutive construction.¹⁹

No forms are derived from the preterite or the imperative stem.

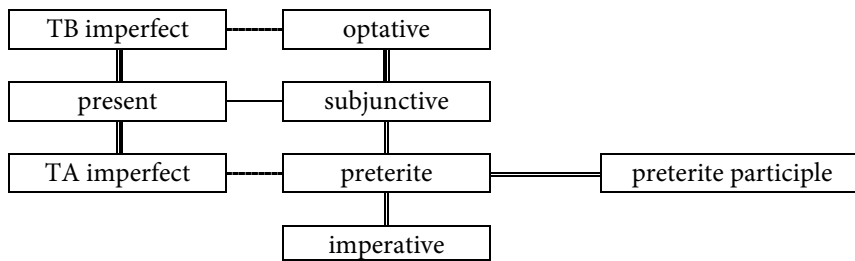
2.3.4 OVERVIEW

For the analysis of the stem patterns, all forms mentioned above may play a role, as they could help identify a certain stem. For convenience, an overview of the basic stems and their derivations is given below (from the basic preterite and imperative stems no other stems are derived).

¹⁹ For the usage cf Thomas (1960).

	<i>present stem</i>	<i>subjunctive stem</i>	<i>preterite ptc. stem</i>
<i>Tocharian A</i>	infinitive	strong imperfect	
<i>Tocharian A and B</i>	present	subjunctive	abstract
	(weak) imperfect	optative	
	present gerund	subjunctive gerund	
	present participle	verbal noun	
	agent nouns	privative	
	verbal adjective		
<i>Tocharian B</i>		infinitive	
		<i>uca</i> -agent noun	

The most important morphological relationships between the different stems are expressed in the scheme below.



In this scheme, the basic and derived stems are represented in boxes, while the affinities between the stems are represented by different types of lines. The threefold line indicates strong affinity, which is found between the derived stems and their basic stems; double lines are used to indicate the subjunctive-preterite-imperative complex (including the preterite participle) hinted at above; the simple line denotes the weaker connection between present and subjunctive, or between the present and the subjunctive-preterite-imperative complex. The dotted lines indicate the connections between the TB imperfect and the optative (both in the endings and the suffix), and those between the TA imperfect and the preterite (only in the endings). If the imperfect had to be described in terms of the other stems, one could call it the optative of the present stem in Tocharian B, and the preterite of the present stem in Tocharian A.

As remarked above, the scheme is simplified, and the subjunctive-preterite-imperative complex is explained in the remainder of the chapter (especially 2.6-2.7, p 94). Hopefully, it can serve as a guideline for sections 2.6-2.7.

2.4 THE ROOT²⁰

In both Tocharian languages, there are different root types, which are essential to the formation of the basic stems. Four main types as well as some marginal subtypes can be distinguished. The most important dichotomy is between roots ending in TB *-a*, TA *-ā* (or weakened *-a* or *-ä*) and roots without root-final *-a* or *-ā*; both types are further divided into a grading type with basic root vocalism TA *ä*, TB *ə* and a non-grading type with basic root vocalism TA *ā*, TB *a* (or, in some cases, TA and TB *e* or *o*, and marginally TA *a*).

The importance of distinguishing different root types is easily demonstrated with some examples from Tocharian B. In this language, there are four basic types of preterite participles, which do not fully agree with the root types, but nevertheless have a strong correlation with them. The fourth preterite participle type is found with all roots with *a*-vocalism in the root and a root-final *-a*, e.g. *taka-* ‘be’, prt.ptc.4 *tatākau*, *tatākaš*; the third participle type is found with all roots with *ə*-vocalism in the root and root-final *-a*, e.g. *kərsa-* ‘know’, prt.ptc.3 *kārsau*, *kārsoš*. Participle types 1 and 2 cannot be predicted on the basis of the root type alone, but all verbs without root-final *-a* form these types, and for instance the reduplication vowel of type 2 is determined by the root vowel (i.e. mainly *ə* or *a*). Another example is the formation of the preterite stem of causatives, which follow the basic rule that if the root has *ə*-vocalism, it is strong, i.e. derived from the root, e.g. *kərs-* ‘let know’, prt. {*śarsa-*}, whereas with *a*-vocalism in the root it is derived from the subjunctive stem, e.g. *karp-* ‘let descend’, prt. {*kārpəšša-*}.

I denote the four root types with the symbols *ə|Ø*, *a|Ø*, *ə|a*, and *a|a*, respectively, i.e. for example “*ə|Ø*-roots” or “roots of the *ə|a*-type”. When speaking of Tocharian A only, I will use the symbols *ā|Ø*, *ā|Ø*, *ā|ā*, and *ā|ā*:

root types	without root-final <i>a</i>		with root-final <i>a</i>	
with <i>ə</i> -vocalism in the root	TA <i>ā Ø</i>	TB <i>ə Ø</i>	TA <i>ā ā</i>	TB <i>ə a</i>
with <i>a</i> -vocalism in the root	TA <i>ā Ø</i>	TB <i>a Ø</i>	TA <i>ā ā</i>	TB <i>a a</i>

To denote larger groups of roots, for instance all roots with root-final *a* or all roots with *a*-vocalism in the root, the cover symbol “*x*” will be used, e.g. “*x|a*-roots” and “*a|x*-roots”, respectively.

If the final *ə* or *ā* – which may but need not be there – is not counted as a separate syllable, most Tocharian *x|Ø*-roots are monosyllabic, e.g. TA *yām-*, TB *yam-* ‘do’, whereas most *x|a*-roots are disyllabic, e.g. TA *kräsā-*, TB *kərsa-* ‘know’.²¹

²⁰ See in general Hackstein (1995: 16).

²¹ Admittedly, this has the disadvantage that the accent of some preterite (and a couple of subjunctive) stems is not placed on the stem itself, but on an intervening shwa, cf {*prek-*’}, prt. of *prək-* ‘ask’, or {*yam-*’}, sbj. of *yam-* ‘do’. With a final shwa, the accent could be noted as {*prek-á*} and {*yam-ə*}, respectively.

There is a small number of disyllabic roots ending in a consonant, principally roots that are built on a present formation such as TA *wäynās-*, TB *wəynask-* ‘honour’. Only in Tocharian B do we find a small set of trisyllabic *x|a*-roots (including the root-final *a*), e.g. *sanapa-* ‘anoint’.

2.4.1 *x|Ø*-ROOTS

A verb has an *x|Ø*-root or a root without root-final *a* if it has at least one stem without root-final *a* where it cannot be lost by regular morphophonological rule. If a verb with an *x|Ø*-root has a stem ending in *a*, this *a* must be analysed as a suffix and the stem itself is secondary. Thus, TA *yām-* ‘do’ and TB *yam-* ‘id’ have an *x|Ø*-root because they never show a stem variant TA *yāmā-^{**}* or TB *yama-^{**}*. At the same time, the preterite stem of ‘say’, TA *weña-*, TB *weña-*, does not suffice to posit an *x|a*-root *weña-* because a shorter root variant *weñ-* is found in the subjunctive TA *weñä/a-*, TB *weñ^ə/e-*: the preterite is secondarily derived with the suffix *a* and the root is of the *x|Ø*-type.

2.4.2 *x|A*-ROOTS

A verb has an *x|a*-root or a root with root-final *a* if all its stems end in root-final *a*. In some cases this analysis is straightforward because the *a* is clearly visible in all stems, but in many cases there is one stem that is in need of an explanation, mostly the present stem. The most important formations that need special comment are the *e-*, *o-*, and *na*-presents of Tocharian B, and the *a*- and *nā*-presents of Tocharian A.

Tocharian B *e*-presents are formed to roots that have root-final *a* in all stems, but this *a* is not visible in the *e*-presents themselves, for example prs. *wäyke-* ‘perish’ vs prt. and sbj. *wäyka-*. The problem with the *o*-presents is completely parallel, for example prs. *korpo-* ‘descend’ vs prt. and sbj. *karpa-*. In the case of the *o*-presents, a morphophonological rule *ao > o* could account for the lack of the root-final *a* in the present, but a similar rule can hardly be motivated for the *e*-presents, although *o*-present verbs are otherwise exactly parallel to *e*-present verbs. The reason to take *e*-present roots to be of the *x|a*-type as well is the parallelism to the *o*-presents.

In Tocharian A, *a*-presents are also paired with other stems with root-final *ā*, for example prs. *wäyka-* ‘perish’ vs prt. and sbj. *wäykā-*. Although there are no parallels for a change *ā.a > a*, *a*-present roots are analysed as *x|ā*-roots because this makes the analysis of the other stems much easier.

Tocharian B *na-* and Tocharian A *nā*-presents are easier to account for because in this case we could say that *na* or *nā* is not a suffix, but the root-final *a* or *ā* preceded by an infix <n>. Thus, compared to the prt. and sbj. stems TB *tārka-*, TA *tärkā-* ‘let go’, the present stems TB *tārknā-*, TA *tärknā-* ‘let go’ contain an infix <n>, not a suffix <na> or <nā>; the notation of the infixed stems is e.g. TB *tärk<n>a-*, TA *tärk<n>ā-*.

2.4.3 $\partial|x$ -ROOTS

$\partial|x$ -roots form the heart of the Tocharian verbal system because they can bear morphological distinctions that $a|x$ -roots cannot, but, the other way round, they have all the possibilities of $a|x$ -roots, too. The morphological distinctions exclusive for $\partial|x$ -roots are gradation (see 2.5.2, p 56) and initial palatalisation (see 2.5.4, p 64), and in that order, because some roots have gradation, but no initial palatalisation, whereas the opposite is exceedingly rare. Because gradation in $\partial|x$ -roots is rarely lacking where it would be expected according to a certain morphological pattern, the term “gradable” would in many cases be suitable.

Since some morphological categories are dependent on gradation or (less frequently) palatalisation, $a|x$ -roots may be excluded from these categories (cf the example of the causative preterites above in the introduction to 2.4, p 44).

A special, but marginal, category is formed by roots with stable *e*- or *o*-vocalism. In most respects, they behave like $a|x$ -roots, since they have no gradation. In some cases, however, they go together with the $\partial|x$ -roots, especially with reduplication or weakening of the suffix vowel.

2.4.4 $A|x$ -ROOTS

$a|x$ -roots, or roots with a stable root vowel *a*, are clearly secondary to $\partial|x$ -roots within the Tocharian verbal system, since they are not liable to gradation (see 2.5.2, p 56) and palatalisation (see 2.5.4, p 64), both essential morphological distinctions. As a consequence, certain morphological categories are not “open” to $a|x$ -roots. In addition, $a|x$ -roots are more prone to weakening processes than $\partial|x$ -roots, especially in Tocharian A, because they may have a very heavy structure; for instance, TA *kākmu* ‘carried’ is all that rests from underlying {*kā-kāmā-w*}.

Especially in $x|a$ -roots, a kind of secondary $a|a$ -roots may arise, i.e. roots that are in fact $\partial|a$ -roots but have certain stems with stable *a*-vocalism, generally in the subjunctive and preterite stems. These roots will be treated as $\partial|a$ -roots and the *a*-vocalism of the other stems will be described as a morphological pattern.

On roots with a stable root vowel *e* or *o*, cf 2.4.3 (p 46).

2.4.5 VC-ROOTS AND CV-ROOTS

Most Tocharian roots have the structure $C(C)VC(C)$ or $C(C)VC(C)a$: only rarely do we find roots with the structure $C(C)V-$, and the ones we find all have something irregular (cf Sieg, Siegling and Schulze 1931: 380). Examples are TA $\gamma-$, TB $\gamma-$ ‘go’, TB *kwa-* ‘call’, TA *knā-* ‘know’ (next to *kñas-*), *tā-* ‘put’ (next to *tās-*), *yā-* ‘go’, *lā-* ‘wipe off’, *wā-* ‘lead’ (suppletive to *āk-*).²² Tocharian A roots like *e-* ‘give’ and *o-* ‘hit; start’

²² On the alleged verb *plā-*, see the discussion in Peyrot (forth.d).

are better set up as *āy-* and *āw-* because of e.g. 1sg.opt. *āyim* ‘may I give’ or 1sg.prt. *āwu* ‘I hit’. The Tocharian B copula root *sk-* consists of two consonants only.

There are also some roots with a vowel onset. These roots mostly behave like normal roots, but they resemble *a|x-* roots in having no gradation, and, of course, no initial palatalisation. In addition, they cannot be reduplicated.

2.4.6 WEAK CONSONANT ROOTS IN TOCHARIAN A

In Tocharian A there are some “weak consonant” roots that display irregular patterns, mostly with an alternation *w* ~ Ø. In most cases, the *w* is original, so that the stems where it is not found are irregular, but sometimes the *w* is secondary.

Although it is not evident synchronically, the *w* is original in vn *mewlune* vs 3sg.prs. *meṣ* ‘trembles’, 3pl. *meyēñc* – there is no reason why it should have been inserted in the subjunctive stem (incidentally, this is corroborated by the Tocharian B cognate *məyw-*). Likewise, it is unlikely that the *w* of 3pl.prs. *klawantr* ‘they fall’ vs 3pl.prt. *klār* is epenthetic (cf Winter 1965b: 203-205), nor that of 3sg.prs. *piwāṣ* vs prt.ptc. *pāpeyu*.

In at least two instances *w* is lost after the imperative prefix *p-*, compare *pleṣār* ‘work!’ with 3sg.prs.-sbj. *wleṣtrā* and *peṃ* ‘say!’, pl. *penäs* with 3sg.sbj. *weñāṣ*.

The *w* is certainly secondary in 3sg.opt. *tāwiṣ* ‘may he put’ in view of the 3sg.sbj. *tāṣ*: normally the optative is formed from the subjunctive with the suffix *āy* which would in the case of *tāṣ* have yielded a phonologically impossible ***tāiṣ* or an overly short ***tiṣ*, so that *w* is most probably a hiatus-filler (cf e.g. Winter 1962: 32-33).

2.5 MORPHOLOGICAL DISTINCTIONS

In this section, an inventory of the morphological distinctions is given, which can be understood as an equivalent of “Die grammatischen Bildungsmittel” of Sieg, Siegling and Schulze (1931: 325-350). However, the aim is not to describe the whole verbal system, but only the distinctions important to the stem patterns; for the personal endings, the derived infinite forms and the imperfect and optative suffixes, see above (2.2, p 26, and 2.3, p 39, respectively).

2.5.1 AFFIXATION

The most salient morphological distinctions are made by means of affixes. In Tocharian, affixation regularly proceeds by means of suffixes, but there is one prefix, too, as well as one infix.

The only prefix both languages have is the imperative prefix: TA {*p-*}, TB {*p-*}. In Tocharian A, the prefix is regular in all imperatives, except ‘see’, which is a suppletive verb with the roots *lākā-* and *pālkā-*. The regular imperative would have been {*p-pālkā-*}, while we find {*pālkā-*}; possibly, *pālkā-* is to be analysed as {*p-lākā-*} instead of {Ø-*pālkā-*} (i.e., formed *with* the prefix *p-*, but from the present root *lākā-*

rather than the subjunctive root *pālkā-*). In two cases, the prefix has obscured the root, as the initial consonant of the root has disappeared: sg. *peṃ* {p-wen-Ø}, pl. *penäs* {p-wen-äs} to *trānk-* ‘speak’ and *plešār* {p-wlāys-ār} to *wlāys*-²³ ‘carry out’ (see also 2.4.6, p 47). All other alternations of and with the prefix are phonological (i.e. *p-* ~ *pä-* ~ *pu-*).

In Tocharian B, the situation is a bit more complicated. First of all, the prefix is never found before *p-*, i.e. the imperative of *laka-* ‘see’, {Ø-p^a/_alka-}, is regular. Second, the prefix is lost before obstruents in later stages, some examples being attested in classical texts already (Peyrot 2008a: 62).

If the *p-* prefix is there, it unambiguously identifies imperative forms. If it is lacking for some reason or other, the imperatives may still be recognised through the endings and the shape of the stem, but in some cases they merge with other forms. In Tocharian B, the most frequent merger is that of the 3sg.prt. and the sg.ipv., e.g. *tāka* ‘(s)he was; be!’ (with late loss of *p-* in the cluster *pt-* in the imperative form). In Tocharian A, the only merger is that of the 2pl.prt. and the pl.ipv.mid. of ‘see’: *pālkāc* ‘you (pl.) have seen; look (pl.)!’ (Sieg, Siegling and Schulze 1931: 346).

There is one infix, *-n-*, which is found in both languages. It exclusively forms present stems. Because of its prominent role in stem derivation, the nasal infix is discussed with the suffixes below, noted as ‘<n>’.

A more structural form of affixation is suffixation. Suffixes are much more frequent than prefixes in Tocharian; in the noun, for instance, it is the principal way of derivation. In the verb, too, suffixes are frequent. Below, a scheme of the attested suffixes – including the nasal infix <n> – is given:

Tocharian A

present	subjunctive	preterite
{sā/sa}	{nāk}	{ā}
{nāsā/sa}	{ñā/a}	{Ø/sā}
{nāsā/sa}	{āsā/sa}	
	{iññā/a}	
{’ā/a}		
{a}		
{<n>}		

Tocharian B

<i>present</i>	<i>subjunctive</i>	<i>preterite</i>
{e}	{∅/e}	{∅/sa}
{o}	{ʔəy}	
{sə/se}	{a}	
{ssə/ske}		
({na ^{ssə} /ske})		
{nə ^{ssə} /ske}		
{ññə/e}		
{<n>}		
{ʔə/e}		

The suffixes will be presented in some more detail below, arranged by their functions (for convenience, the class numbers of Krause and Thomas’ 1960 *Elementarbuch* are indicated as well, but they will not be used systematically throughout this work). In my analysis, a suffix is not the stem minus the root, i.e. the elements that derive a

²³ The vocalism *āy* instead of *e* is needed for the preterite participle *wāwleṣu*.

stem from the root, but an element that distinguishes one stem from another: in Tocharian, stems are not always formed from the root, but also from one another. Thus, for example, there is no preterite suffix {ṣṣa} in Tocharian B because it does not distinguish the preterite: in fact, the element ṣṣ is evidently the same as in the present suffix {ṣṣ/ṣke},²⁴ to which the preterite marker {a} is added.

In both languages, some stems have no suffix. In the above list, these are not represented exactly because there is no suffix. Unaffixed stems are found in TA and TB presents, subjunctives, and preterites.

A complicating factor in examining the suffix inventory of the Tocharian verb is that roots may have a final TA *ā*, TB *a*, which also occurs as a suffix in exactly the same shape. In my analysis, the *ā* or *a* is a suffix when it is not found in all stems (for a discussion of different root types, cf section 2.4, p 44).

The suffixes of Tocharian A are:

{-ṣä/ṣa-} present (TEB prs. class 8)

This is by far the most frequent present suffix. The same element is found in the combined suffixes {-nāṣä/ṣa-} and {-nāṣä/ṣa-}, while {-ṣä/ṣa-} seems to be composed of *s* and {-'ä/a-} itself. It is also frequent in subjunctives, but it does *not* distinguish these subjunctives from another stem, since the present has the same {-ṣä/ṣa-} suffix, while the subjunctive is marked by an additional {-ā-} before it: e.g. sbj. {lām-ā-ṣä/ṣa-} vs prs. {lām-ṣä/ṣa-} of *lām*- ‘place’ (the combination *āṣä/ṣa* is analysed as a separate suffix, see further below). The suffix may conflate with the 3sg.prs. ending, cf *eṣ* prs. {āy-ṣä-ṣ} ‘(s)he gives’ or sbj. {āy-ṣ} ‘(s)he will give’, but before a suffixed pronoun the double ṣṣ is preserved: *eṣ-ām* {āy-ṣ-n} ‘(s)he will give it to him/ her’ vs *eṣṣ-ām* {āy-ṣä-ṣ-n} ‘(s)he gives [it] to him/ her’.

{-nāṣä/ṣa-} present (TEB prs. class 10)

This present suffix is very rare. It is obviously composed of *-nā-* (in turn from <n> before a root-final *-ā*) and *-ṣä/ṣa-*, but in two instances there is no bare *nā*-stem next to it: prs. {pāknāṣä/ṣa-} of ‘intend’ and prs. {yāknāṣä/ṣa-} of ‘be careless’ next to sbj. {pāknāk-} and {yāknāk-}, respectively. Since the subjunctive stem does not show *nā* only, but an extended *nā-k*, it is difficult to analyse the present as {-nā-ṣä/ṣa-}. If the subjunctive received another explanation, the presents could be analysed as “normal” *ṣä/ṣa*-presents. The combination *-nāṣä/ṣa-* is certainly composed of *-nā-* and *-ṣä/ṣa-* in prs. {yomnāṣä/ṣa-} of ‘reach’ because the sbj. is {yomnā-}.

²⁴ The preterite is actually derived from the subjunctive; the subjunctive is identical to the present because it is zero-derived.

{-nä^{sä}/sa-} present (TEB prs. class 10)

This present suffix seems to contain a {-s^ä/sa-} suffix, too; however, since the first element *n* does not occur independently as a suffix, there is no doubt about the status of this suffix. In one instance, the *n* is assimilated to a preceding *l*: wällä^{sä}/sa-, i.e. {wällä^{sä}/sa-} or {wāl-nä^{sä}/sa-} of 'die'. The resulting geminate *ll* is sometimes simplified to a single *l*, always together with syncope of the first *ä*, so that we get {wlä^{sä}/sa-}. For a discussion of the morphological status of geminates, cf 2.5.8 (p 90).

{-'ä/a-} present and subjunctive (TEB prs. and sbj. class 2)

This suffix functions as a present and subjunctive suffix; however, in the first function its distribution is limited, since the three certain cases are all from suppletive verbs. The 'ä/a-suffix may be difficult to recognise because some forms of the paradigm may become indistinguishable from other classes. On the one hand, the *ä*-variant forms may merge with root stems if the root-final is not palatalisable; on the other hand, the *a*-variant forms may merge with forms with an invariable *a*-suffix, or the *a*-vowel may be syncopated. Clear indications for the 'ä/a-suffix are the alternation of palatalised and unpalatalised forms and the alternation of *ä*- and *a*-variants.

{-a-} present and subjunctive (TEB prs. and sbj. class 3)

The invariable *a*-suffix is not to be confused with the alternating 'ä/a-suffix discussed above. The *a*-suffix is attested in present and subjunctive function, but it is much more frequent in the former. In both functions, it is exclusively middle. The *a*-suffix may merge formally with the 'ä/a-suffix (see above) or with the *ä*-suffix, when the latter is reduced to *a*. Only in relatively few cases does a merger of the *a*- and *ä*-suffixes lead to a complete merger of the stems, however: often there is still a difference in the vowel grade of the root. In finite forms, the *a*-suffix can be excluded if the forms are active, but middle forms are no sufficient positive indication for the *a*-suffix, since 'ä/a- and *ä*-presents and subjunctives may also be middle. A complication with this suffix in subjunctive function is that there is one active form that shows *ä* instead of *a*: 2sg.sbj. *nakät*. On the basis of this form alone, we should actually set up the subjunctive as {-ä/a-} and the present suffix as {-a-}; the question is whether this one form is sufficient proof to change the entire analysis.

{<n>} prs. and sbj. (TEB prs. and sbj. class 6, prs. class 7)

The *n*-infix has two variants: in most cases, it is infixed before a root-final *-ä*, which yields a sequence *nä* (traditionally class 6), but in a small subgroup of verbs with roots ending in a consonant cluster with final *-k* it is infixed before the *-k*, which yields a sequence *nikä* (traditionally class 7). The *nä*-variant of the infix principally forms presents, but there is one certain subjunctive attested, too: {yomnä-} of 'reach'. Two other verbs look like *nä*-subjunctives, but they have an unexplained *k*-extension

(see at {-nāk-} below). After strong root vowels (*a*, *ā*, *e*, *o*), {-nā-} is reduced to *na* (the only exception being {yomnā-}), and after strong vowels and before endings with the same vowels it is even further reduced to *n(ā)*, e.g. *skenmām*, prs.ptc. of ‘try’ {skāy-nā-mān} (see 2.5.2, p 56). The *rikā*-variant of the infix forms only presents, and because infixing yields an extra *ā*-syllable, the root-final *ā* is never weakened, e.g. *kātkā*- ‘rise’ has a present stem {kāt·n·kā-} that is always trisyllabic *kātānkā*.

{-ññ^ā/a-} present and subjunctive (TEB prs. and sbj. class 12)

This suffix certainly forms subjunctives, but whether it also forms presents is not clear: there are not enough forms attested. The geminate *ññ* may be reduced to simple *ñ* before consonants, and before *t*, which is quite frequent in the endings, it is reduced to *n*. If *ññ^ā/a* is preceded by *ā*, this *ā* is always coloured to *i*, i.e. the most frequent surface form of the suffix is *iññ^ā/a-*.

{-nāk-} subjunctive (TEB sbj. class 6)

This suffix is attested only twice, i.e. in two verbs one time each, and it is isolated in the system. It is further striking that no subjunctive forms are attested, but only two optative forms. In view of the *nā*-sbj. {yomnā-}, which is otherwise partly parallel, we would rather expect a subjunctive stem in {-nā-} as well, to which the optative would probably be *-ni-*; possibly, the complex *-nāśśi-* or *-nāśi-* contains a hiatus-filling *ś* (or *śś*). However, *ś* is not a normal hiatus-filler and therefore we can only analyse the complex as containing a subjunctive suffix {-nāk-}.

{-ñ^ā/a-} subjunctive (TEB sbj. class 7)

This subjunctive suffix is rather frequent; unlike the *ññ^ā/a*-suffix, it is not normally reduced to *n* before *t*. In some forms, e.g. *riñmār* ‘I will abandon’, the *a*-vowel is lost although the normal rules for vowel weakening (see 2.5.2, p 56) do not apply.

{-ā^{sā}/sa-} subjunctive (TEB sbj. class 8)

This suffix exclusively forms subjunctives and it is always found next to *sā/sa*-presents. It is clearly composed of *ā* and *sā/sa*, but it is not attractive to analyse it that way because *ā* would have to be an infix (see also below).

{-ā-} subjunctive and preterite (TEB prs. and sbj. class 5)

The problem with this subjunctive and preterite suffix is that there are also roots ending in *ā*; however, there are very clear cases of an *ā*-suffix, like in prs. {sālp-} of ‘glow’, sbj. {sālpā-}. Whether verbs with an *a*-present are to be analysed as having a root in *ā* is unclear: these verbs behave like roots in *ā* in all other stems, but it is uncertain whether the addition of the present suffix *a* to a root-final *ā* would yield *a*. Nevertheless, I will analyse verbs with *a*-presents as having a root-final *ā*. The *ā*-suffix may be reduced to *a* after strong root vowels (*a*, *ā*, *e*, *o*); if it is in addition

followed by an ending with a strong vowel (including the *vn* suffix *-lune*), it is reduced to *ä* or *Ø*. There is one suffix that is clearly composed of *ä* and *ṣä/sä*, the subjunctive suffix {-*äṣä/sä*-.}. Since that suffix is found next to *ṣä/sä*-presents, an alternative analysis could theoretically take the *ä* of the subjunctive suffix as an infix, which would be unique within the system (see also above).

{-*Ø/sä*-.} preterite (TEB prt. class 3)

This preterite and imperative suffix is alternating. In the preterite, the zero forms are found in the active except the 3sg., and the *sä*-forms are found in the middle and in the 3sg.act. In the imperative, decisive forms are lacking, but the assumption that the sg.act. is a zero form, whereas the other forms are *sä*-forms – parallel to the situation in Tocharian B – is not contradicted by the attestations. Next to preterites with the *Ø/sä*-suffix, there is also a preterite that is similar, but lacks the suffix *sä*; I will call the latter preterite “*sä*-less preterite”.

The suffixes of Tocharian B are:

{-*e*-.} present (TEB prs. class 3)

This present suffix is exclusively middle; it may be confused with *e*-forms of the alternating *ʔ/e*-suffix. The *e*-suffix is in complementary distribution with the *o*-suffix: the former is found in roots with *ə*-vocalism (including *əy*, *əw*) and some roots with *e*-vocalism, whereas the latter is found in roots with *a*-vocalism (alternating with *o*-vocalism before the *o*-suffix).

{-*o*-.} present (TEB prs. class 4)

Like the *e*-present, this present suffix is exclusively middle. It is in complementary distribution with the *e*-present: the latter occurs in roots with *ə*- and *e*-vocalism, whereas *o*-presents are found in roots with *a*-vocalism (including the diphthongs /ay/ <ai> and /aw/ <au>). Through mutation, the root-*a* of *o*-presents changes to *o* in non-diphthongal roots; *ai* and *au* remain unchanged. In most cases, *o*-presents can be identified easily, but there are a few instances where they merge with the imperfect-optative. In the imperfect-optative, the 3pl. of *na*-present stems and *a*-subjunctive stems is sometimes *-om* instead of *-oyem*, and sporadically we find the same phenomenon in middle forms, i.e. *-onträ* instead of *-oyenträ* (Peyrot 2008a: 142-144). Since the *o*-present occurs in roots with *a*-vocalism only, forms like *wärponträ* B284b5 are unambiguously optative: the root has *ə*-vocalism. However, a form like *laikontär-ñ* B241b6 could theoretically be ambiguous because the root has *a*-vocalism.

{- $\text{\textcircled{a}}$ /se-} present (TEB prs. class 8)

This alternating present suffix is usually easy to identify. The $\text{\textcircled{a}}$ -variant of the $\text{\textcircled{a}}/\text{ske}$ -suffix may be reduced to $\text{\textcircled{s}}$, but since it has a variant s before t , $\text{\textcircled{a}}/\text{se}$ -forms are still distinct in that context: $\text{\textcircled{a}}/\text{se}$ -presents have *st* whereas $\text{\textcircled{a}}/\text{ske}$ -presents or subjunctives have *st*.

{- $\text{na}\text{\textcircled{a}}/\text{ske}$ -} present (TEB prs. class 10)

This present suffix is obviously composed of *-na-* and $\text{\textcircled{a}}/\text{ske}$ -, and most of the instances of the element $\text{\textcircled{a}}/\text{ske}$ - can be explained as $\text{\textcircled{a}}/\text{ske}$ -presents derived from *na*-subjunctives, e.g. sbj. { $\text{p}\text{\textcircled{a}}\text{k}\text{\textcircled{n}}\text{\textcircled{a}}$ -} of ‘intend’ vs prs. { $\text{p}\text{\textcircled{a}}\text{k}\text{\textcircled{n}}\text{\textcircled{a}}\text{\textcircled{a}}/\text{ske}$ -}. However, there are also instances of $\text{\textcircled{a}}/\text{ske}$ -presents to *a*-subjunctives, so that these cannot be analysed as $\text{\textcircled{a}}/\text{ske}$ -presents. Since these $\text{\textcircled{a}}/\text{ske}$ -presents are only found with roots ending in a resonant that is assimilated to a geminate, an alternative analysis could take the gemination as a morphological marker instead of the *n*: prs. { $\text{k}\text{\textcircled{a}}\text{\textcircled{l}}\text{\textcircled{a}}\text{\textcircled{a}}/\text{ske}$ -} of ‘bring’ next to sbj. { $\text{k}\text{\textcircled{a}}/\text{\textcircled{a}}\text{\textcircled{l}}\text{\textcircled{a}}$ -} could be analysed as { $\text{k}\text{\textcircled{a}}\text{\textcircled{l}}\text{\textcircled{a}}\text{\textcircled{a}}\text{\textcircled{a}}/\text{ske}$ -} instead of { $\text{k}\text{\textcircled{a}}\text{\textcircled{l}}\text{\textcircled{a}}\text{\textcircled{a}}\text{\textcircled{a}}/\text{ske}$ -}. If the geminate is analysed as a morphological marker, or perhaps just a morphological irregularity, all remaining instances of $\text{\textcircled{a}}/\text{ske}$ - can be explained as composed of {-*na*-} and {- $\text{\textcircled{a}}/\text{ske}$ -}, and there would be no independent suffix {- $\text{na}\text{\textcircled{a}}/\text{ske}$ -} (on gemination, see 2.5.8, p 90).

{ $\text{\textcircled{n}}$ } prs. and sbj. (TEB prs. and sbj. class 6, prs. class 7)

The *n*-infix has two variants: in most cases, it is infixed before a root-final *-a*, which yields a sequence *na* (traditionally class 6), but in a small subgroup of verbs in *-k* it is infixed before the *k*, which yields a sequence *nik* (traditionally class 7).

The *na*-variant of the infix principally forms presents, but it occurs a couple of times as a subjunctive suffix, too. In three of its occurrences, it obscures an element of the root: in {*malla-*} to *māl-* ‘oppress’ it causes gemination of the *l*, just as in {*kəllá-*} to *kəlpá-* ‘obtain’, where the *p* is lost in addition, and in {*kərná-*} to *kərya-* ‘buy’ it does not cause gemination, but the *y* is lost. In two other cases, however, there are no root changes and the *n* is clearly a subjunctive marker: { $\text{p}\text{\textcircled{a}}\text{k}\text{\textcircled{n}}\text{\textcircled{a}}$ -} to *pəka-* ‘intend’ and { $\text{y}\text{\textcircled{a}}\text{k}\text{\textcircled{n}}\text{\textcircled{a}}$ -} to *yəka-* ‘be careless’. There are three presents where the *n*-element has caused gemination: {*təllá-*} of ‘lift’, {*pəllá-*} of *pəla-* ‘praise’ and {*skərrá-*} of *skəra-* ‘scold’. Whether these are to be analysed as containing an *n*-infix or as having morphological gemination is discussed in 2.5.8 (p 90).

The *nik*-variant of the infix forms only presents. It is mostly found after clusters with final *-k*, such as *kətká-* ‘cross’, prs. { $\text{k}\text{\textcircled{a}}\text{\textcircled{t}}\text{\textcircled{n}}\text{\textcircled{k}}$ -}, i.e. *kättänkä-*, but it is also attested before single *-k* in *pəyka-* ‘write’, prs. { $\text{p}\text{\textcircled{a}}\text{\textcircled{y}}\text{\textcircled{n}}\text{\textcircled{k}}$ -}, i.e. *pínkā-*, and before *-t* in *kəta-* ‘strew’, prs. { $\text{k}\text{\textcircled{a}}\text{\textcircled{n}}\text{\textcircled{t}}$ -}. Although it is evident that the *nik*-variant of the nasal infix is an infix, its behaviour is difficult to describe because the *nik*-forms have no root-final *-a*. Since all other stems of the *nik*-presents do have a root-final *-a* and they are otherwise completely parallel to *na*-presents, it is preferable to take the absence of the *a* as a special feature of the *nik*-presents. *nik*-presents are predominantly found

with *tk*-roots, which regularly show gemination of the *t*, as in the example mentioned above: *kātka*- ‘cross’, prs. *kättänkä*- (see 2.5.8, p 90).

The distribution of the *na*-variant and the *ñk*-variant is not perfect: except for *päyka*- ‘write’, all *ñk*-presents either have *na*-present forms beside them, or the number of attested forms is so small that *na*-variants are probably not attested by chance. In addition, there are also well-attested verbs with roots in *-k*, including roots in *k*-clusters, that form only *na*-presents, such as *plaska*- ‘think’, prs. {*plask*⟨*n*⟩*a*-}. On this distribution and its historical explanation, see 4.6.4 (p 435).

{*nə*^{ssə}/*ske*-} present (TEB prs. class 10)

This present suffix is not frequent, but its existence is certain: it occurs at least in three different well-attested verbs. However, in all three cases the root undergoes changes because of the suffix: in {*kənmə*^{ssə}/*ske*-} to *kəm*- ‘come’ and {*tənmə*^{ssə}/*ske*-} to *təm*- ‘be born’, metathesis of *mn* to *nm* has taken place; in {*yənmə*^{ssə}/*ske*-} to *yəp*- ‘enter’, *p* was first assimilated to *m*, after which metathesis took place.

Yet a fourth possible instance, {*lənnə*^{ssə}/*ske*-} to *lət*- ‘go out’, is a difficult case altogether. Since the basic root is *lət*-, it is tempting to connect the double *nn* found in the subjunctive {*lənn*-} and the present {*lənnə*^{ssə}/*ske*-} with the *nə*^{ssə}/*ske*-suffix. However, strictly synchronically, the present is derived from the subjunctive root *lənn*- with the present suffix {-*ssə*/*ske*-}; the relationship to the root *lət*- found in e.g. the preterite is simply irregular.

There is one possible case of a *nə*^{ssə}/*ske*-present-subjunctive: {*tənmə*^{ssə}/*ske*-}, caus. of *təm*- ‘be born’. However, on the evidence of the prt.ptc. {*tetənmə*ššəw}, the *n* has spread throughout the causative verb, so that the root must be set up as *tənm*- ‘beget’, which makes {*tənmə*^{ssə}/*ske*-} rather a *ssə*/*ske*-present.

{-*ssə*/*ske*-} present (TEB prs. and sbj. class 9)

This present suffix is certainly the most frequent suffix with this function. It is found in other stems, too, but it never distinguishes those stems; the *ssə*-preterite, for instance, is clearly built on the present in {-*ssə*/*ske*-} by means of the preterite suffix {-*a*-}.²⁵ The suffix undergoes a remarkable change before *t*: instead of the expected *št* from *ssə-t* (after syncope; with degemination of *ss* to *š* before a consonant), we find *st*. This peculiarity enables us to distinguish *ssə*/*ske*-forms with *st* from *sə*/*ske*-forms with *št*.

{-*ññə*/*e*-} present (TEB prs. and sbj. class 12)

This alternating suffix forms presents. The same element is sometimes found in the preterite, but these preterites are clearly built on the corresponding present, enlarged

²⁵ Below, I will argue that the preterite is in fact derived from the subjunctive, which was identical to the present because it was zero-derived from it.

with the preterite suffix {-a-} (cf above about {-ʂʂə/ske-}).²⁵ The $\tilde{n}\tilde{n}^ə/e$ -suffix may sometimes be difficult to recognise because it disappears almost completely in the 3sg., where {- $\tilde{n}\tilde{n}^ə$ -n} combines to simple /-n/. However, the obscured suffix of these forms is shown by the accent (if the latter can be determined): 3sg. *käskam̃* '(s)he strews' must have the structure {*käskəññə*-n} because otherwise it would not be possible to explain the final accent /*käskán*/. In the middle, the 3sg. looks exactly like a 3pl., and if the form is isolated (and the number is not known), there is nothing to decide the matter; without context, *kwipenträ* can only be identified as a $\tilde{n}\tilde{n}^ə/e$ -present instead of an *e*- or $^ə/e$ -present because of the 3pl.mid. *kwipeññenträ* beside it.

{- $^ə/e$ -} prs., sbj. and prt. (TEB prs. & sbj. class 2, prt. class 6)

This alternating suffix shows most functional variety of all suffixes: it may form presents, subjunctives and preterites. It is rather frequent as present and subjunctive, but there are only three verbs with an $^ə/e$ -preterite. These preterites further stand out in having present endings, which makes them unique within the system.

{- $\emptyset/e$ -} subjunctive (TEB sbj. class 3)

The $\emptyset/e$ -suffix is very similar to the $^ə/e$ -suffix. However, the distribution of the $\emptyset$ - and *e*-variants is totally different: in $^ə/e$ -stems, $\emptyset$ -variants are found in the 2sg., 3sg. and 2pl. in both active and middle, but in $\emptyset/e$ -stems, $\emptyset$ -variants are found throughout the active and *e*-variants throughout the middle. There is a striking resemblance between the middle only present suffix {-*e*-} and the middle variant of the $\emptyset/e$ -suffix; the only reason to keep them apart is the difference in function and the existence of active $\emptyset$ -forms next to the middle *e*-subjunctives.

{- ^əy -} subjunctive (TEB sbj. class 4)

This subjunctive suffix is formally almost identical to the imperfect-optative suffix; there is often no way to distinguish optative and subjunctive on formal grounds in this category. An exception is the 1sg., which is {- ^əy -ew} in the subjunctive and {- ^əy -m} in the optative.

{-*a*-} subjunctive and preterite (TEB sbj. class 5, prt. class 1)

The *a*-suffix is frequent as subjunctive and preterite suffix, but it is not attested in present function. The problem with the *a*-suffix is that there are also roots ending in *a*. In my analysis, the *a* belongs to the root when it is found in all stems, and it is a suffix when it is lacking in one stem or other (for details see 2.4.2, p 45).

{- $\emptyset/sa$ -} preterite (TEB prt. class 3)

This preterite and imperative suffix has two variants: a zero or $\emptyset$ -variant and a *sa*-variant. The $\emptyset$ -variant is found in the active of the preterite, except the 3sg., and in the active of the imperative, whereas the *sa*-variant is found in the 3sg.act. of the

preterite and the whole middle of preterite and imperative. On the accent pattern of the formations with this suffix, see 2.5.7 (p 85).

2.5.2 GRADATION

The gradation patterns of Tocharian A and B must be discussed separately because of the differences in their vowel systems and other points of divergence specific to gradation.

In Tocharian A, vowel weakening causes a kind of secondary suffix gradation, which will not be treated as such, since it is largely predictable (see Winter 1994b). As a rule, *ā* cannot be preceded by a strong vowel such as *a*, *ā*, *e*, *o*; it is automatically weakened to *a*. If one of the strong vowels *a*, *ā*, *e*, *o* is followed by a strong vowel two or three syllables further, the syllable directly following the first strong vowel syllable can only contain *ä*, *e* or *o*; a medial *a* or *ā* is weakened to *ä*. In practice, the first strong vowel syllable is mostly the first syllable of the word, and the weakened syllable is the second. Since vowel weakening is always progressive, the first syllable is never affected; it is only the vowel of medial syllables that may disappear or merge with others. Weakening may occur twice in the same word, i.e. a heavy sequence *ā_ā_ā_V* may be weakened to *ā_ä_ä_V* (this applies especially to preterite participles, see 2.9.1, p 146).

There is one phenomenon that is parallel to affection as it is found in Tocharian B. In Tocharian B, a suffix vowel *o* affects a preceding *a* to become *o*, too. In Tocharian A, a similar process takes place, but since the “affecting” vowel *a* is not in any way distinct from other suffix vowels *a*, the change of *ā* to *a* in the root can hardly be called affection in the synchronic sense. This “affection” will be analysed as a special type of gradation.

The basic gradation vowels of Tocharian A are *ä*, *a*, *ā*. However, the analysis of the Tocharian A gradation system is complicated by the fact that in roots with *i* and *u* the morphological equivalents of both *a* and *ā* are *e* and *o*. Whereas *i* and *u* can be analysed phonologically as *ä* followed by *y* and *w*, respectively, the analysis of *e* and *o* as *ay* and *aw* or *äy* and *äw* leads very far away from the graphic forms that are actually attested. However, as far as morphology is concerned, such analyses allow for a thorough simplification of the system, and therefore that analysis is adopted here (it has great advantages for the description of reduplication as well; see 2.5.6, p 81).

A minor complication is the alternation between *rä* and *är*, where *är*-spellings form a vast majority, even when full grade forms of the root have *ra* or *rā*. On the phonological level, *är* and *rä* are clearly not distinctive, and whether they are to be analysed as /är/, /rā/ or syllabic /r/ is of no relevance to us; morphologically, *är* and *rä*-spellings will be treated alike, analysed as *är* next to full grades *ar* or *ār* and as *rä* next to full grades *ra* or *rā*. The different types of gradation vowels are represented in the scheme below:

root type	<i>ä</i> -grade			<i>a</i> -grade			<i>ā</i> -grade		
plain	<ä, Ø ²⁶ >	/ä/	{ä}	<a>	/a/	{a}	<ā>	/ā/	{ā}
-y-	<i>	/äy/	{äy}	<e>	/e/	{ay}	<e>	/e/	{äy}
-w-	<u>	/äw/	{äw}	<o>	/o/	{aw}	<o>	/o/	{äw}
-är-	<är, rä>	/är/	{är}	<ar>	/ar/	{ar}	<är>	/är/	{är}
-äl-	<äl, lä>	/äl/	{äl}	<al>	/al/	{al}	<äl>	/äl/	{äl}
-rä-	<är, rä>	/är/	{rä}	<ra>	/ra/	{ra}	<rä>	/rā/	{rä}
-lä-	<äl, lä>	/äl/	{lä}	<la>	/la/	{la}	<lā>	/lā/	{lä}

Gradation does not mark one morphological distinction in particular and it is only rarely the sole distinction between two forms; generally, gradation is co-distinctive. Gradation may distinguish or co-distinguish different forms of one stem, or one stem from another.

Gradation that distinguishes different forms of one stem is exclusively of the type *ä* : *a*, but the distribution of these grades differs.

In the *äl/ā*-root subjunctive, *a*-grade may distinguish the singular active forms from the other forms with *ä*-grade of the active and middle paradigms, for instance 2sg. *katkat* {katkā-t} (with weakening of root-final *ā* to *a* after *a*) of *kātkā*- ‘cross’ vs 2pl. *kātkāc* {kātāk-c}, or 3sg. *krasas* {krasā-š} of *krāsā*- ‘know’ vs 3pl. *kārsēnc* {krāsā-ñc}, 3sg.mid. *kārsātār* {krāsā-tār}. In this type, gradation is never distinctive by itself because the endings sufficiently mark person and number. A similar pattern is found in the imperative of the same verbs, where the pattern is *a* in the singular active and *ā* in the plural active and the middle, cf sg. *pākras* {p-kras-Ø} of *krāsā*- ‘know’ vs pl. *pākrās* {p-krās-ās}. The only middle form attested is sg.mid. *pāklār* {p-kāl-ār} of *kālā*- ‘bring’, but because of the parallels with the subjunctive pattern, the pl.mid. probably had *ā*-grade, too.

In the closely related *äl/ā*-root preterite, *a*-grade may distinguish the plural active forms from the other forms with *ä*-grade, whereas initial palatalisation may distinguish the singular active from the middle, for instance 3pl. *kalar* {kalā-r} of *kālā*- ‘bring’ vs 3sg. *šāl* {šālā-Ø} and 3sg.mid. *klāt* {kālā-t}, or 3pl. *mrasar* {mrāsā-r} of *mrāsā*- ‘forget’ vs 3sg. *mārs* {mrāsā-Ø}. Again, gradation is only co-distinctive, as the endings mark person and number.

In the *s*-preterite, gradation is also found, but only in two verbs; it is certainly a relic. It distinguishes the active paradigm with *a*-grade from the middle paradigm with *ä*-grade: cf of *tās*- ‘put’ 3sg. *casās* {cas-sā-Ø}, 3pl. *casār* {cas-r} vs 2sg.mid. *tsāte* {tās-(s)ā-te}, 3pl.mid. *tsānt* {tās-(s)ā-nt} and of *prāk*- ‘ask’ 3sg. *prakās* {prak-sā-Ø} vs 3sg.mid. *prāksāt* {prāk-sā-t}. Obviously, the difference between active and middle is not only marked by gradation, but by the endings, too; in *tās*- ‘put’, it is additionally marked by initial palatalisation in the active.

²⁶ *ä* is regularly syncopated in open syllables.

Gradation is also found in suffixes: the gradation in the suffix {-^ä/a-} and its derivatives {-^{sä}/sa-, -nā^{sä}/sa-, -ñā^{sä}/sa-, -ññ^ä/a-, -ñ^ä/a-} does not distinguish different stems, or active from middle paradigms, but co-distinguishes certain forms of a paradigm: the palatalising *ä*-variant is used with the 2nd and 3rd person singular and the 2nd person plural (all both active and middle), and the non-palatalising *a*-variant is used with the 1st person singular and the 1st and 3rd person plural (all both active and middle). This type of gradation may be blurred by vowel weakening because the *a* of the alternating suffixes is sometimes weakened to *ä*. In most alternating suffixes, the alternation is still recognisable after vowel weakening because the palatalisation is co-distinctive – the suffix may become e.g. -^{sä}/s^ä-. However, for the suffixes {-ññ^ä/a-} and {-ñ^ä/a-}, and {-^ä/a-} after palatalisation-neutral consonants (see 2.5.4, p 64), this results in total merger of the alternating variants. A further complication with suffix gradation is that the gradation vowel is directly followed by the ending, and there are some endings that have enlarged variants, i.e. 1sg.prs. -*m* has a variant -*am*, which after palatalisation-neutral consonants makes the *ä*- or Ø-suffix indistinguishable from the ^ä/a-suffix in these forms (see 2.2.1, p 26).

In an indirect way, stem-internal gradation also distinguishes forms from each other that belong to different stems, namely when endings are identical: 3sg.prt. and sg.ipv. -Ø; 2sg.prs. and 3sg.prt. -*t*; 1pl.prs. and 1pl.prt. -*mäs*; 2pl.prs., 2pl.prt.mid. and pl.mid.ipv. -*c*; 2pl.prt. and pl.ipv. -*s*; 3pl.prt. -*r* and sg.mid.ipv. -*är* are indistinguishable after *ä*. Since many forms are lacking, the gradation distinctions will be shown with deduced forms of ‘know’ (the subjunctive forms have present endings, of course): 3sg.prt. *särs* with *ä*-grade vs sg.ipv. *päkras* with *a*-grade; 2sg.sbj. *krasat* with *a*-grade vs 3sg.prt. *kärsät* with *ä*-grade; 1pl.sbj. *kärsämäs* with *ä*-grade vs 1pl.prt. *krasamäs* with *a*-grade; 2pl.prs. and 2pl.prt.mid. *kärsäc* and pl.mid.ipv. *pkärsäc* all with *ä*-grade; 2pl.prt. *krasas* with *a*-grade vs pl.ipv. *pkärsäs* with *ä*-grade (but the ipv. also has a different stem without final *ä*); 3pl.prt. *krasar* with *a*-grade vs sg.mid.ipv. *pkärsär* with *ä*-grade (morphologically, the difference is larger: {krasä-r} vs {p-kräs-är}). In other words, with the exception of the 2pl. in -*c*, all forms with identical (or nearly identical) endings are disambiguated by their root grade.

The remaining gradation types, and *ä*-gradation in general, only serve to distinguish stems from each other. Distinctive *a*-grade is found in a few infrequent present classes, in one frequent present class, and in one frequent preterite class.

There seem to be three present classes with *a*-grade alternating with *ä*-grade elsewhere, but in total only eight verbs are attested, and some of them only fragmentarily:

- ^ä/a-present: certain for {pañw^ä/a-} of ‘pull’; deduced for three other verbs: {wa^{sä}/sa-} of ‘dress’ (otherwise ^{sä}/sa-present), {ma^lw^ä/a-} of ‘grind’, {wa^l/a-} of ‘cover’ (both otherwise *ä*-present);
- a*-present: certain for {sama-} of ‘grow’, {šalpa-} of ‘be redeemed’; deduced for {šalca-} of uncertain meaning;
- ^{sä}/sa-present: only attested for {prak^{sä}/sa-} of ‘ask’.

In the $\bar{a}/a$ -presents, the a -grade alternates with $\bar{a}$ -grade or stem-internal gradation elsewhere, and this is the main argument to add the verbs for which an $\bar{a}/a$ -present is not totally certain: their gradation would otherwise be without parallel. In the a -presents, there is a whole category of verbs that also have a -grade in the root (see directly below); however, these differ in having stable $\bar{a}$ -grade elsewhere, whereas the *śama*-type has $\bar{a}$ -grade or stem-internal gradation elsewhere, and characteristic initial palatalisation. The combination of initial palatalisation and a -grade in the root is the reason why *śalca-* is added here. $\bar{s}\bar{a}/sa$ -presents to roots with gradation normally have $\bar{a}$ -grade, so that *prak^{s̄}ā/sa-* clearly stands out, cf its stem-internal gradation in the s -preterite, matched only by *tās-* (cf below).

Further, there is one present class with distinctive a -grade: a -presents with $\bar{a}$ -grade elsewhere. In fact, gradation has a heavy functional load in this class, since it distinguishes the present from the subjunctive, categories that would otherwise be identical because the endings are the same. The a -grade in this class is different from the gradation of the classes discussed above because it alternates not with $\bar{a}$ -grade, but only with $\bar{a}$ -grade: a unique pattern in Tocharian A. Roots with y - or w -vocalism cannot carry this distinction, since e.g. {āw} and {aw} are both /o/; thus {pota-} of ‘honour’ may be both prs. and sbj. It would certainly be too artificial to analyse *pota-* as representing two different underlying stems, prs. {pawta-} and sbj. {pāwta-}, as there is simply no difference between the two.

In the preterite, the only class that has distinctive a -grade is the s -preterite. However, the s -preterite may also have stable $\bar{a}$ -grade or another stable root vowel (for the two verbs with stem-internal gradation see above). If a verb has stable $\bar{a}$ -grade in the s -preterite, all other stems have $\bar{a}$ -grade, too; if a verb has a -grade in the s -preterite, the other stems always have $\bar{a}$ -grade. To this distribution there is only one exception, in a verb which shows other irregularities as well: *kñas-* of ‘know’ has a -grade alternating with $\bar{a}$ -grade in the other stems, e.g. prs. {knāna-}, and no stem with $\bar{a}$ -grade. The grading s -preterites {cas-⁰/sā-, tās-(s)ā-} of ‘put’ and {prak-⁰/sā-, prāk-sā-} of ‘ask’ have different grades in other stems, too: *prāk-* has a -grade in the present and *tās-* has $\bar{a}$ -grade elsewhere. a -grade in the s -preterite normally, but not always, goes together with initial palatalisation of non-palatal consonants (see 2.5.4, p 67).

The remaining gradation type is $\bar{a} : \bar{a}$. This type is found in three patterns: the strong imperfect, two minor present classes, and two irregular verbs. The strong imperfect is straightforward: it has $\bar{a}$ -grade, is formed from a $\bar{a}|x$ -root, and non-palatal initial consonants are palatalised (see 2.5.4, p 66). $\bar{a}$ -grade presents are of at least two different types: one has root-final $\bar{a}$, the other has not; both have $\bar{a}$ -grade elsewhere, cf:

- $\bar{a}|\bar{a}$ -type: sbj. and prt. *pālā-* vs prs. *pällā-* of *pālā-* ‘praise’;
 sbj. and prt. *māntā-* vs prs. *māntā-* of *māntā-* ‘disturb’;
 $\bar{a}|\emptyset$ -type: sbj. and prt. *pekā-* vs prs. *päyk-* of *päyk-* ‘write’;
 sbj. and prt. *lekā-* vs prs. *läyk-* of *läyk-* ‘wash’.

The two irregular verbs that have $\bar{a}$ -gradation have both been mentioned above: *knā*- ‘know’ and *tās*- ‘put’ have a -grade and $a : \bar{a}$ -gradation in the s -preterite, respectively, and $\bar{a}$ -grade elsewhere.

To sum up the most important characteristics of Tocharian A root gradation:

- $\bar{a} : a$: the most frequent. a -grade distinguishes the active singular from the active plural and the middle in suffixless subjunctives; the active plural from the active singular and the middle in the corresponding preterites; and some s -preterites and three small present classes from other stems;
- $\bar{a} : a$: is found in one category, where a -grade distinguishes $x|\bar{a}$ -root presents from the other stems that have $\bar{a}$ -grade;
- $\bar{a} : \bar{a}$: not very common. $\bar{a}$ -grade is found in the strong imperfect, and in some verbs it distinguishes all other stems from the present stem.

In Tocharian B, the types of gradation show many similarities to Tocharian A, but there are some essential differences, and there are more different patterns in general. The basic grading vowels are $\bar{a}$, e and a ; exceptionally, we find o . As in Tocharian A, there are complications with roots containing a resonant r or l or a semi-vowel y or w ; again, these complications are not identical to Tocharian A. In Tocharian B, morphological ay and ey both surface as $/ay/$, but in archaic texts, there is a difference between aw and ew , whereas in classical and late texts both aw and ew surface as $/aw/$. The resulting $/ay/$ and $/aw/$ are special in being real diphthongs, i.e., the a in these combinations does not undergo the effects of stress (and so stress is not detectable in these combinations); for morphological reasons it is best to analyse these diphthongs as composed of a gradation vowel e or a plus a semi-vowel y or w . The $\bar{a}$ -grade of *re*, *er* or *ra*, *ar* is always $/\bar{e}r/$ (never $/r\bar{a}/$), and of *le*, *el* or *la*, *al* it is always $/\bar{e}l/$ (never $/l\bar{a}/$), compare the following scheme:

root type	$\bar{a}$ -grade			e -grade			a -grade		
plain	<a, ä>	/ä/	{ä}	<e>	/e/	{e}	<ā, a>	/a/	{a}
-y-	<i>	/əy/	{əy}	<ai>	/ay/	{ey}	<ai>	/ay/	{ay}
-w-	<u>	/əw/	{əw}	<au>; <eu>; <ew>	/aw/; /ew/ ²⁷	{ew}	<au>	/aw/	{aw}
-ər-	<är, ar>	/ər/	{ər}	<er>	/er/	{er}	<ār, ar>	/ar/	{ar}
-əl-	<äl, al>	/əl/	{əl}	<el>	/el/	{el}	<āl, al>	/al/	{al}
-rā-	<är, ar>	/ər/	{rə}	<re>	/re/	{re}	<rā, ra>	/ra/	{ra}
-lā-	<äl, al>	/əl/	{lə}	<le>	/le/	{le}	<lā, la>	/la/	{la}

Another peculiarity of the Tocharian B gradation system is a -affection, which blurs the gradation system. a -affection is a morphological change of e -grade to a -grade

²⁷ The diphthong $/ew/$, written <eu>, <ew>, is confined to archaic Tocharian B.

before an *a* in the following syllable. It is a morphological change because the sequence *e_a* is by no means impossible or even rare in Tocharian B; however, it is *not* morphologically distinctive, since there is no *morphological* contrast between forms with *a*-affection and forms without: *a*-affection is a morphological regularity that is concomitant with *e*-grade followed by *a* in certain classes. *a*-affection blurs the gradation system because it may leave *e*- and *a*-grade indistinct before *a*, so that structural arguments must be adduced to view surface *a*-grade before *a* as either real *a*-grade or as concealed *e*-grade.

Apart from *a*-affection, we also find *o*-affection in Tocharian B verbal morphology. *o*-affection does not interfere with the gradation system because an *o*-suffix is found in one present class only, where there is no gradation, neither stem-internal nor between stems. *o*-affection changes a preceding *a* to *o* before *o*, and in some rare cases it can proceed further back: in a sequence *a_a_o* both *a*'s are affected, so that *o_o_o* is the outcome (subsequently, the third *o* is syncopated, see 2.5.3, p 64). Like *a*-affection, *o*-affection is morphological, as *a_o* is an acceptable sequence in the language. *o*-affection is not morphologically distinctive, perhaps with the exception of a small class of verbs discussed in 2.5.3 (p 64), where it may be co-distinctive.

In stem-internal gradation patterns, *ə : e* is the basic type; all instances of *ə : a* gradation occur before a following *a*, and can thus be seen as derived from the basic pattern *ə : e* through *a*-affection. Stem-internal gradation is basically found in root subjunctives (both *ə|Ø*- and *ə|a*-roots) and in the *s*-preterite, and the corresponding imperatives of both.

ə : e gradation is found in a number of *ə|Ø*-root subjunctives, whereas the derived gradation *ə : a* is found in a number of *ə|a*-root subjunctives, one *ə|a*-root present-subjunctive, and in some *a*-subjunctives. The two types of gradation seem to represent the same basic type because they are in complementary distribution over root types with and without root-final *a*, and the gradation pattern is exactly the same. Both exhibit *e*- or *a*-grade respectively in the active singular, and *ə*-grade in all other subjunctive forms.

In forms derived from the subjunctive stem, *ə*-grade is also regular: the inf. *tārkat̪si* /tārkat̪s̪y/ B21a5 of *tārka*- 'let go' is certainly a mistake in view of frequent and regular *tarkatsi* /tārkat̪s̪y/ (Lane 1959: 169; Cowgill 1967: 158).

The functional load of these gradation patterns is different from Tocharian A. First, the two most frequent forms of the subjunctive paradigm, the 3sg. and the 3pl., have the same ending *-n* and their distinction in the grading subjunctives is fully dependent on the vowel grade of the root; in Tocharian A, on the other hand, there are no identical endings within paradigms. Second, with other identical endings, within or between paradigms, the decisive distinction is never made by means of gradation: either there is another difference, for example in the accent or in a suffix, or the forms are really identical. I would expect a gradation difference between the 2pl. of the *s*-preterite and the corresponding pl. imperative, but the imperative must have had the prefix *pə*- as the main distinction between the two, and probably there was a difference in accent, too. Unfortunately, no such pair is attested – the 2pl. of

the *s*-preterite is not attested at all –, but the forms may have been: 2pl.prt. *tesas** /tesəs/ {tesə-sə} vs pl.ipv. *ptasäs** /ptəsəs/ {pə-təsə-sə} (attested is arch. *ptäſso* /ptässə/ with mobile *o* for /ptässə/). Gradation is certainly co-distinctive in the contrast between 2sg.sbj. and 2pl.prt.mid., e.g. 2sg.sbj. *kālat* {kāla-t} of ‘carry’ vs 2pl.prt.mid. *klāt** {kələ-t}.

The other stem-internal gradation pattern is found in a number of *s*-preterites, where the whole active has *e*-grade and the whole middle *a*-grade. The functional load of this gradation type is low, since the endings are marked for voice, and the *s*-preterite has an alternating suffix that sets the active (except for the 3sg.) apart from the middle (and the 3sg. active). Although the number of attested forms is small, the same pattern seems to be found in the corresponding imperatives: the active forms have *e*-grade and the middle ones *a*-grade.

One of the three present-preterites also has *e* : *a* gradation. However, the pattern is similar to the gradation pattern of the *a|Ø*-root subjunctive rather than that of the *s*-preterite, even though there is possibly a salient difference in the first person singular. The 1pl. *kmem* {kəmə-mə} and 3pl. *kamem* {kəmə-n} (/kəmen/) of ‘come’ with *a*-grade in the root and the homophonous 2sg. and 3sg. *šem* {šemə-Ø} with *e*-grade conform to the general *a|Ø*-root subjunctive pattern; however, the 1sg. *kamau* {kəmə-w} (/kəmau/) seems to have *a*-grade instead of the regular *e*-grade. The problem with this form is that it is attested only once in a fragmentary text, where its meaning and function cannot be verified; still, it is very likely to be a form of ‘come’ and the morphological pattern of this verb strongly suggests that it is a 1sg.prt.

Seemingly, a pattern derived from stem-internal *e* : *a* gradation is *o* : *a* gradation. The distribution of the grades is exactly the same, both in the *a|Ø*-root subjunctives and in the *s*-preterite. However, it is not clear why the verbs that have *o*-grades do not have “regular” *e*-grades instead. We find {yop-} ~ {yāp-} of *yāp*- ‘enter’, which has *o*-grade in its *s*-preterite, but since the preterite has no middle, no *a*-grade of the preterite is attested there; in {otk-}, the preterite stem of *wātk*- ‘decide’, likewise with *o*-grade for expected *e*-grade in the *s*-preterite, the initial *w*- seems to be lost additionally (on the prehistory of these forms, see 4.5.10, p 429).

A different pattern with *o*-grades does not combine with *a*-grade, but with *a*-grade instead. This pattern is attested in only two verbs, apparently both of the *a|Ø*-root type, that is, the type that normally does not show gradation at all. We find {kow-} ~ {kaw-} ‘kill’ with the 3sg.sbj. *kowän* and the 3sg.prt. *kowsa*, forms where we would expect *e*-grade in *a|Ø*-roots. The *o*-grade variant of {or-} ~ {ar-} ‘give up’ is attested in the 3sg.sbj. *orāñ-c* and the prt. 1sg. *orwa*, 2sg. *orasta*, 3sg. *orsa*, where we would expect *e*-grade in *a|Ø*-roots; however, the *a*-grade in the 3pl.prt. *arar* is unexpected (see 4.5.10, p 429).

All other gradation patterns distinguish stems. We find *a* : *e*, *a* : *a* (before *a*), and marginally *e* : *a* (before *a*) and *o* : *a*.

The *a* : *e* pattern distinguishes some *ʔ/e*-presents and *s*-preterites. The *ʔ/e*-presents that are distinguished by this pattern have stable *e*-grade, whereas the other stems have either *e* : *a* gradation or *a*-grade, e.g. *ʔ/e*-present {ceśə/ke-} of *tək*- ‘touch’

vs subj. {t^e/ək-}. The *s*-preterites distinguished by this pattern have stable *e*-grade. Of course, such a distinction can only be established with middle forms, since active *s*-preterite forms may have *e*-grade because of stem-internal gradation. All *s*-preterites with distinctive *e*-grade combine with the rare $\emptyset$ /*e*-subjunctive with *a*-grade and a present with *a*-grade, e.g. prt. {nek-sa-} of *nək*- 'destroy; perish' vs subj. {nəké-}. In the verb *nək*-, the subjunctive has a grading active {n^e/ək-} beside it, but the other verbs of this class have only middle subjunctive forms with *a*-grade: {cəmé-} of *təm*- 'be born', {pəké-} of *pək*- 'boil, ripen' etc.

The *a* : *a* pattern is only found before *a*. It is most frequent in the causative preterite, where it combines with initial palatalisation and distinctive initial accent. However, this class is also attested in verbs with palatalisation-neutral initials, and the accent is not distinctive in the 3sg. act., the most frequent form. Thus, the *a*-grade may be an important distinction between the causative and the non-causative, e.g. 3sg.prt. *šarsa* /šársa/ {šársá- $\emptyset$ } '(s)he knew' of *karsa*- 'know' vs 3sg.prt. *šārsa* /šārsa/ {šārsa- $\emptyset$ } '(s)he let know' of *šars*-^{caus.} 'let know'. Four verbs show a slightly different pattern: {plāwá-} to *plaw*- 'complain', {láká-} to *lak*- 'see', {lāwá-} to *law*- 'wipe off' and {šawá-} (with non-distinctive palatalised *š*- throughout) to *šaw*- 'eat'. The only difference with the causative pattern is that the causative has root (initial) accent. The similarity between the two patterns is shown by the irregular causative to *laka*-: it is the only causative with *a*-vocalism where the preterite {lákəšša-} is formed from the present-subjunctive, apparently because an *a*-grade preterite {lāka-}** would have been too close to the corresponding non-causative {láká-}.

In all remaining cases of *a* : *a* gradation the present stem is distinguished by *a*-grade versus *e*-grade in all other stems. This pattern seems to be regular in $\tilde{n}\tilde{n}^a$ /*e*-presents (not $\tilde{n}\tilde{n}^a$ /*e*-present-subjunctives), and in some cases I have assigned ambiguous forms with this gradation pattern to the same class. Since the present is marked not only by gradation, but also by a special suffix, gradation is generally only co-distinctive in this class. However, in the 3sg. the present suffix may be concealed and become similar to the corresponding subjunctive, at least in the script, so that the root grade becomes the only distinction: 3sg.prs. *nittam* {nəytəññə-n} /nəyttən/ vs 3sg.sbj. *naittam** {náytta-n} /náyttan/. Nevertheless, the forms were certainly distinguished by a difference in accent, too, so that in real speech the root grade was only co-distinctive. *a* : *a* gradation is further found in the verb *pāla*- 'praise', where it is also only co-distinctive because the present has a distinctive geminate *ll* in addition. Since with the $\tilde{n}\tilde{n}^a$ /*e*-presents and *pāla*- 'praise' *a*-grade combines with consistent root-final *a*, we may be dealing with original *e*-grade changed to *a* through *a*-affection.

e : *a* gradation is very rare and its *a*-grade only occurs before *a*: it is attested with certainty only for *klep*- 'touch', *tresk*- 'chew', *mens*- 'be sad' (see 4.7.1, p 454). The *e*-grade is found in the present stems, e.g. *tre*^{ss^a}/*ske*- and *men*^{ss^a}/*se*- of the verbs *tresk*- and *mens*-, whereas *a*-grade combined with an *a*-suffix is found in the subjunctive and the preterite, e.g. *traska*- and *mant^aa*-. The rarity of the pattern may have instigated the creation of variants following other patterns that are more frequent,

which sets *mens-* apart from *mantša-* {mánsa-} with a new present *nantsana-* {mansána-}. The verb *tresk-* is rare altogether, so that it may be a coincidence that secondary forms of the type {traskána-} are not attested.

o : *a* gradation occurs in one verb only: 'drink'. It has a present-subjunctive with *o*-grade and a present-preterite and preterite participle with *a*-grade. The gradation was in most forms only co-distinctive, but the nom.sg.m. of the prt.ptc., *yāku*, differed only in the vowel grade from the 1sg.prs.-sbj. *yoku*; the 1sg.prs.-sbj. must have been very similar to the unattested 1sg.prt., but probably there was still a difference in the suffix: 1sg.prs.-sbj. *yoku* {yokə-w} vs 1sg.prt. *yākau** /yākaw/ {yak-é-w}.

2.5.3 AFFECTION

Affection is only found in Tocharian B. Historically, *ā* : *a* gradation in Tocharian A, which distinguishes a class of presents with *a*-grade from subjunctives with *ā*-grade, goes back to affection, but synchronically, it is rather to be analysed as gradation. In the Tocharian A preterite participle we find *ā*-reduplication before an *ā* in the root, which could be called affection, but since there is also a correlation between absence of reduplication and *ā* in the root, it need not be (cf 2.9.1, p 146). In Tocharian B, affection is principally a non-distinctive morphological phenomenon.

In Tocharian B, affection comes in two forms: 1) *e* becoming *a* before *a*, and 2) *a* becoming *o* before *o*. Since the *a* or *o* remains, and there are no other *e* before *a* or *a* before *o* to contrast with, both types of affection are not distinctive.

There is one small subcategory where the affecting *o* disappears: *o*-presents to trisyllabic roots. In these presents, a sequence *CaCaCa* is affected by a following *o*, but this *o* is apocopated, so that the result is *CoCoC* instead of *CoCoCo*: {kolok-} to *kalaka-*, {porok-} to *paraka-*, {wolok-} to *walaka-* and {sonop-} to *sanapa-*. Strictly speaking, *o*-affection is not purely distinctive here either, since the difference between *a_a* and *o_o* is not the only one between e.g. the present and the subjunctive stem: the subjunctive stem is also longer, as it ends in *a*.

In view of the marginal variant *-ontr* for the optative ending *-oyentr* (see also 2.5.1, p 52), we would expect another instance of contrast there: a 3pl.opt. /arontr/* {ara-'əy-entr} vs a 3pl.prs. /orontr/* {oro-ntr}. Since these short optative endings are very rare in the middle (in contrast to the active), it can have been a very marginal contrast at most.

2.5.4 PALATALISATION

Apart from one or perhaps two secondary instances, there are no palatalising vowels in Tocharian. Phonetically, the front vowels of both Tocharian A and B are [i] and [e]. In Tocharian B, there are some cases of palatalisation in front of [i], which belong to the late language; the only consonants affected are *n* and *l*, cf *aṣaṇike* 'arhat' for *aṣanike* and *klyiye* 'woman' for *kliye* (Peyrot 2008a: 90-91; 109). The

existence of a parallel phenomenon for *e* is less clear: there are doublets of the type *pleksa* ~ *plyeñksa*, but here the chronology rather seems to be reversed, and since such doublets are isolated, it might also be a morphological phenomenon. In Tocharian A, there is some variation between *li* and *lyi*, too; although the texts do not seem to display clear chronological differences, the palatalised variant is probably secondary compared to the non-palatalised variant. In all other cases, palatal consonants occur freely before all vowels, including back vowels, and all front vowels occur after all consonants, palatal and non-palatal.

In Tocharian, palatalisation is a morphological phenomenon: it is not a palatal feature added to a consonant, but it is a system of morphological alternations of non-palatal and palatal consonants. In some cases, one could argue that there are palatalised consonants on the phonological level, like <p> ~ <py>, but in the majority of cases palatal consonants are independent phonemes, not a non-palatalised consonant with a palatal feature added. This is fully in line with the fact that many consonants have no palatal variant, like *r*, and some share the same palatal variant, like *ts* and *k* in Tocharian A, which both alternate with *ś*.

A further argument for a morphological rather than a phonological analysis of palatalisation is that in some cases the palatal variant of a certain consonant or consonant group is specific for the morphological pattern. For instance, the palatal variant of Tocharian B *nk* is *ñc* in some categories, but *ṃś* in others, whereas *py*, the palatal variant of *p*, occurs in specific morphological patterns only. If palatalisation had been a phonological phenomenon, the palatalised variants would always have been the same.

As a morphological phenomenon, palatalisation is widespread. However, it is not fully independent: it is often associated with gradation. The relationship with gradation is not constant: certain vowel grades sometimes go together with palatalisation, but gradation may also occur without palatalisation, or palatalisation without gradation. Even if palatalisation and gradation are found side by side, the relationships may vary, cf nom.sg. *pācer* 'father' with palatal *c* before *e*-grade, obl.sg. *pātār* with non-palatal *t* before *a*-grade or the present suffix {*śś*/*ske*} with palatal *śś* before *a*-grade and non-palatal *sk* before *e*-grade. Although it is frequent and important, palatalisation is subject to two important types of restrictions. Even in categories where it is regular, palatalisation cannot affect certain consonants or consonant groups, and in roots of the *a|x*-type, i.e., those without gradation, initial palatalisation never occurs.

Thus, a description of palatalisation in Tocharian must address the following questions:

- 1) which consonants and consonant groups have palatal variants?
- 2) which palatal variants have these consonants and consonant groups?
- 3) which roots are affected by initial palatalisation and which are not?
- 4) in which categories do we find palatalisation and in which is it distinctive?
- 5) what is the correlation with gradation?

Roots that cannot undergo palatalisation (point 3) are of the *a|x*-type, as mentioned above, and they are discussed in 2.4.4 (p 46). Below, the other points are systematically treated, first for Tocharian A and then for Tocharian B: although the palatalisation systems have many similarities, differences are considerable, also structurally.

First, an inventory of palatalisation patterns is given: all verbal categories where palatalisation is found are discussed. Second, a list is presented of palatalisable consonants and consonant groups with their palatal variants, with references to the category where these variants are attested. Third, the system of palatal, non-palatal (but palatalisable) and neutral (non-palatalisable) consonants is briefly recapitulated. Fourth, an overview of the vowel grades following palatal consonants is given.

INVENTORY OF TOCHARIAN A:

initial palatalisation in the strong imperfect

There are only few strong imperfects; most have palatalised initials, and {pārā-}, which has not, certainly has an unpalatalisable initial: [+pal]: {cārkā-} (*tārkā*- ‘let go’), {śākā-} (*ṣākā*- ‘pull out’), {śārsā-} (*krāsā*- ‘know’), {śālpā-} (*kālpā*- ‘obtain’), {lākā-} (*lākā*- ‘see’); [-pal]: {pārā-} (*pār*- ‘bring’).

initial palatalisation in the *ā|ā*-root preterite

Palatalised initials in the active singular are attested for the following verbs: {śāwkā-} (*yok*- + *ṣāwkā*- ‘drink’), {cārkā-} (*tārkā*- ‘let go’), {śārsā-} (*krāsā*- ‘know’), {śāmā-} (*kāl*- + *ṣtāmā*- ‘stand’), {śālā-} (*kālā*- ‘bring’), {lāmā-} (*ṣām*- + *lāmā*- ‘sit’), {lāwā-} (*lāwā*- ‘send’). One verb does not fit the pattern, since it has medial palatalisation instead, next to one uncertain case of initial palatalisation; remarkably, the preterite participle, which should never be palatalised in this class, is attested with a palatalised variant, too: prt.ptc. *kātko*, *śātko* next to {käckā-} (*kātkā*- ‘cross’) and a fragmentarily attested (but regular) 3sg. *štā(k)* {śātkā-Ø}. Many other verbs must belong to the same regular pattern, but their 3sg.act. forms are not attested, either by chance or because they are middle only. However, some verbs whose initial is certainly palatalisable (because they occur in the verbs listed above) have no palatalisation, so that we have to assume that there was an additional class without palatalisation, probably with intransitive verbs (see Winter 1980b: 553-555), e.g. {kālkā-} (*y*- + *kālkā*- ‘go’) and {ṣālpā-} (*ṣālpā*- ‘be freed’). This complicates the search for unpalatalisable initials. Some examples of verbs without initial palatalisation where we would actually expect it on the basis of the morphological pattern are: {pālskā-} ‘think’, {pāwtkā-} ‘divide’, {mārtkā-} ‘shave’, {māwkā-} ‘give up’, {māwsā-} ‘lift’, {mrāsā-} ‘forget’. Accordingly, the initials *p*-, *m*- and *mr*- can be classified as unpalatalisable. Unclear is {ṣāytā-} ‘touch’ because it seems to be transitive, while its initial is certainly palatalisable.

initial palatalisation in the *s*-preterite²⁸

Palatalisation is attested in the following verbs (all without attested preterite middle): {ławck- $\emptyset$ /sā-} of *ławtk*- 'turn into (tr.)', {kñas- $\emptyset$ /(s)ā-} of *knā*- 'understand', {cank- $\emptyset$ /sā-} of *tānk*- 'check', {crak- $\emptyset$ /sā-} of *tärk*- 'dismiss', {ñak- $\emptyset$ /sā-} of *nāk*- 'destroy', {plawck- $\emptyset$ /sā-} of *plāwtk*- 'arise', {šark- $\emptyset$ /sā-} of *kärk*- 'bind', {šo- $\emptyset$ /sā-} *kāw*- 'pour', {layp- $\emptyset$ /sā-} of *läyp*- 'leave behind', {lawk- $\emptyset$ /sā-} of *läwk*- 'shine'. On the basis of the middle preterites {tamä-} 'be born', {nakä-} 'perish', {t*akä-} 'burn (intr.)', which are *sā*-less preterites with certainly palatalisable initials, this sub-class has no initial palatalisation. ({lawk- $\emptyset$ /sā-}, which is the only *sā*-less preterite with an active inflexion next to it, has a palatalised initial in the middle, perhaps because of the regular palatalisation in the active?)

Apart from unpalatalisable initials there are more subcategories where palatalisation is lacking. There is one verb with an alternation between palatalised and unpalatalised initials, where the unpalatalised variant is found in the middle, so that the lack of initial palatalisation in some verbs with only middle forms may be regular (see below): {ca/täs- $\emptyset$ /(s)ā-} of *täs*- 'put' with an active {cas- $\emptyset$ /sā-} and a middle {täs-(s)ā-}. Another difference between the palatalised and unpalatalised variants is that the former is followed by *a*-grade, just as all palatalised preterites listed above, and the latter is followed by *ä*-grade.

Preterites with unpalatalised initials, *a*-grade, and active forms are: {pāl- $\emptyset$ /sā-} of *pāl*- 'extinguish', {mayt- $\emptyset$ /sā-} of *mäyt*- 'set out', {mark- $\emptyset$ /sā-} of *märk*- 'take away (?)' (Malzahn forth.b), {rak- $\emptyset$ /sā-} of *räk*- 'stretch', {wack- $\emptyset$ /sā-} of *wätk*- 'decide'. Since they all have initials of which it is rather likely that they are unpalatalisable on the one hand, and they occur in a category where we would certainly expect initial palatalisation on the other, we can safely classify these initials as unpalatalisable. The following verbs lack initial palatalisation and have *ä*-grade: {träyk- $\emptyset$ /sā-} of *träyk*- 'be confused', {sräwk- $\emptyset$ /sā-} of *sräwk*- 'kill', {spärk- $\emptyset$ /sā-} of *spärk*- 'disappear', {säyn- $\emptyset$ /sā-} of *säyn*- 'satisfy', {tränk- $\emptyset$ /sā-} of *tränk*- 'cling'. Of these, {säyn- $\emptyset$ /sā-} certainly has a palatalisable initial, so that palatalisation must be absent for structural reasons – perhaps because it is middle only; {tränk- $\emptyset$ /sā-}, also middle only, could be parallel. {träyk- $\emptyset$ /sā-} is attested with one problematic form only; {sräwk- $\emptyset$ /sā-} may have an unpalatalisable initial and {spärk- $\emptyset$ /sā-} is unclear: it is active and we would expect *sp* (but it has *ä*-grade instead of *a*-grade). The remaining *s*-preterites are of the unpalatalisable *ä*/Ø-type or they have unpalatalisable initials.

The two imperfects {crank- $\emptyset$ /sā-} of *tränk*- 'say' and {šayp- $\emptyset$ /sā-} of *tšäyp*- 'dance' perfectly conform to this pattern; on their being imperfects, see 2.6.7 (p 105).

A peculiarity of *s*-preterites is that we sometimes find medial palatalisation, in two cases combined with initial palatalisation, and in two other cases with unpalatalisable initials: {plawck- $\emptyset$ /sā-} of *plāwtk*- 'arise', {pyawck- $\emptyset$ /sā-} of *pyāwtk*- 'come into being', {ławck- $\emptyset$ /sā-} of *ławtk*- 'turn into (tr.)', {wack- $\emptyset$ /sā-} of *wätk*- 'decide'.

²⁸ Cf e.g. Ringe (1990: 185-186).

Although a restored *palyä(št)* A303a4 is often adduced to prove a stem {paĭ-^Ø/sā-} of *pāl-* ‘extinguish’, this restoration is very uncertain and the palatalised /ĭ/ is not supported by the other verbs with medial palatalisation because these all have *tk ~ ck*. It is implausible that the *ck* in these verbs compensates for the impossibility of initial palatalisation:²⁹ {ławck-^Ø/sā-} and {pławck-^Ø/sā-} have in fact palatalised initials, so that such an explanation could only work for {pyawck-^Ø/sā-} and {wack-^Ø/sā-}. In my view, the key to this phenomenon is the cluster *tk* because that is what the four verbs have in common (strikingly, the *ālā*-root preterite of *kātkā-* also shows an alternation *tk ~ ck*).

initial palatalisation in the reduplicated preterite

In the reduplicated preterite, we find initial palatalisation in a few verbs, medial palatalisation in two isolated cases (both with *l ~ ĩ*), and no palatalisation in the bulk of the instances. With initial palatalisation we find: {ca-cālā-} (*tāl-* ‘lift’), {ñā-ñāwā-} (*nāw-* ‘roar’), {ĭā-ĭāmā-} (*lām-* ‘establish’), {śa-śāmā-} (*tām-* ‘promote’), {śa-śārā-} (*tār-* ‘separate’), {śa-śāmā-} (*štām-* ‘put’). On the basis of the preterite participles *cacpuku* and *śašpānku*, we can assume that the relevant verbs formed a reduplicated preterite {ca-cpāwkā-} (*tpāwk-* ‘hide’) and {śa-špānkā-} (*tšpānk-* ‘skin?’). Two verbs clearly exhibit initial palatalisation, but this palatalisation is found in the other stems, too: {śa-śārsā-} (*śārs-* ‘let know’, base verb *krās-* ‘know’), {śa-śārpā-} (*šārp-* ‘point out’; see Winter 1980b: 555). In one verb, *spārk-* ‘let perish’, we find a similar phenomenon, with palatalised *sp-* at least in the sbj. {špārkā^{sā}/sa-} and the prt.ptc. *šašpāрку*, while it is lacking precisely in the preterite {sa-spārkā-} if we are to base ourselves on 3pl.mid. *saspārkānt* A310a4.

With medial palatalisation we find: {ka-kālpā-} (*kālp-* ‘make obtain’) and {pa-pālkā-} (*pālk-* ‘torment’). Many of the verbs without palatalisation have unpalatalisable initials, but some have certainly palatalisable ones, e.g. {ka-kālā-}, {ta-tātkā-}, {sa-sātkā-}. In two verbs, the present suffix has spread to the preterite, in its palatalised variant: {ta-tāmšā-} and {la-lākšā-}. Although they look like imperfects, they must be preterites because of their reduplication.

initial palatalisation in the present and the subjunctive

Systematic initial palatalisation in the present seems to be attested only with *t^s ~ ś* in Ø-presents with distinctive *a*-grade: {śama-} (*tāmā-* ‘increase’), {śalpa-} (*tālpā-* ‘be freed’), and with additional irregularities possibly {śalca-} and {śertā-}, for which see 2.6.10 (p 115). Apart from verbs with initial palatalisation throughout, the following isolated cases can be mentioned: {cā^{sā}/ka-?} ‘touch’, if 3pl. *ckeñc* is indeed from such a stem and at the same time related to *tkālune*; {śāmā/a-} ‘come’, sbj. to the root *k^wām-*;

²⁹ As argued by Ronald Kim (Poznań) in a lecture at the 2008 Fachtagung of the Indogermanische Gesellschaft in Salzburg.

{šäm^ä/a-} ‘sit’, which has only a present, so that it cannot be seen whether the palatalisation belongs to the root or is characteristic of the present only.

medial palatalisation in present and subjunctive

All instances are found with the ^ä/a-suffix, which forms both presents and subjunctives. We find palatalisation in the following verbs: {ā^{šä}/ka-} ‘lead’, {kā^{ckä}/tka-} ‘be glad’, {kīo^{šä}/sa-} ‘hear’, {trāy^{šä}/ka-} ‘be confused’, {pā^{šä}/sa-} ‘protect’, {pāl^{šä}/ka-} ‘torment’, {pro^{šä}/sa-} ‘fear’, {yār^{šä}/sa-} ‘honour’, {wlāy^{šä}/sa-}³⁰ ‘work’, {t^{šär}^{šä}/ka-} ‘separate’, and the frequent ^{šä}/sa-suffix and its derivatives. We do not find palatalisation in the following: {kāw^ä/a-} ‘kill’, {cāmp^ä/a-} ‘can’, {pār^ä/a-} ‘bring’, {šāw^ä/a-} ‘live’, {šäm^ä/a-} ‘come’, {šäm^ä/a-} ‘sit’, {yām^ä/a-} ‘do’, {lāñc^ä/a-} ‘go out’, {weñ^ä/a-} ‘say’ (*nas-* is a special case, on which see 2.6.8, p 108). A special present type with a palatalised medial throughout the present, but not in other stems, is ascertained by {pañw^ä/a-} ‘stretch’, with possible parallels in {małw^ä/a-} ‘grind’, {wał^ä/a-} ‘cover’ (cf under 2.6.9, p 110).

medial palatalisation in the imperfect

The medial palatalisation of the imperfect follows regular patterns. We mostly find *n* ~ *ñ*, *nk* ~ *ñś*, *s* ~ *š* in e.g. (imperfect stems cited): {keñā-} ‘call’, {kātāñšā-} ‘rise’, {āyšā-} ‘give’. In addition, there are isolated cases like: {pālšā-} ‘shine’, {māñcā-} ‘hurt’ and {sālšā-} ‘glow’. The following have an unpalatalisable medial: {yāpā-} ‘do’, {šāwā-} ‘live’, {šāmā-} ‘sit’, {sāryā-} ‘sow’, and possibly {yāwā-} ‘strive for’. In addition, we find palatal consonants such as *ł* in {kālā-} ‘stand’, cf prs. {kāl^ä/a-}, and the cluster *łw* in {małwā-} ‘grind’, cf prs. {małw^ä/a-} (see 2.6.9, p 110).

overview

[-pal]	[+pal]	
<i>k</i>	<i>ś</i>	ipf. (initial); <i>ä ā</i> -√-prt.; <i>ä Ø</i> -√-prt.; red.prt.; ^ä /a-sbj. (initial); ^ä /a-prs. (medial)
<i>kn</i>	<i>kñ</i>	<i>ä Ø</i> -√-prt.
<i>t</i>	<i>c</i>	ipf. (initial); <i>ä ā</i> -√-prt.; <i>ä Ø</i> -√-prt.; red.prt.; ^ä /a-prs. (initial)
<i>tk</i>	<i>ck</i>	<i>ä ā</i> -√-prt. (medial); <i>ä Ø</i> -√-prt. (medial); ^ä /a-prs. (medial)
<i>tp</i>	<i>cp</i>	red.prt. (inferred)
<i>tr</i>	<i>cr</i>	<i>ä Ø</i> -√-prt.
<i>tw</i>	<i>cw</i>	^ä /a-prs. (medial)
<i>n</i>	<i>ñ</i>	<i>ä Ø</i> -√-prt.; red.prt.; ipf. (medial)
<i>nk</i>	<i>ñś</i>	ipf. (medial)
<i>nt</i>	<i>nc</i>	ipf. (medial)

³⁰ The vocalism *āy* instead of *e* is needed for the preterite participle *wāwlešu*.

[-pal]	[+pal]	
<i>nw</i>	<i>ñw</i>	red.prt.; 'ä/a-prs. (medial)
<i>pl</i>	<i>pĭ</i>	ä Ø-√-prt.
<i>rk</i>	<i>rś</i>	'ä/a-prs. (medial)
<i>rs</i>	<i>rş</i>	'ä/a-prs. (medial)
<i>l</i>	<i>ĭ</i>	ipf. (initial); ä ä-√-prt.; ä Ø-√-prt.; red.prt.; 'ä/a-prs. (medial)
<i>lk</i>	<i>ĭk</i>	red.prt. (medial)
	<i>lś</i>	'ä/a-sbj. (medial); ipf. (medial)
<i>lw</i>	<i>ĭw</i>	'ä/a-prs. (medial)?
<i>lp</i>	<i>ĭp</i>	red.prt. (medial); ipf. (medial)
<i>şt</i>	<i>ś(ş)</i>	ä ä-√-prt.; red.prt.
<i>s</i>	<i>ş</i>	'ä/a-prs. (medial); ipf. (medial)
<i>sp</i>	<i>şp</i>	red.prt.
<i>t^s</i>	<i>ś</i>	ipf. (initial); ä ä-√-prt.; ä Ø-√-prt. (ipf. function); red.prt.; Ø-prs. (initial)
<i>t^sp</i>	<i>śp</i>	red.prt. (inferred)

Distinguishing palatal, non-palatal, and neutral consonants and consonant groups, it is best to start with the single consonants. Neutral consonants, which are never palatalised, are *p*, *m*, *r*, *w*; non-palatal consonants, which can undergo palatalisation, are *k*, *t*, *n*, *l*, *s*, *t^s*; palatal consonants are *c*, *ñ*, *ĭ*, *ś*, *ş*. According to its behaviour, *y* should be classified as a neutral consonant – although it is itself palatal, of course –, since it cannot be palatalised and it is not the palatalised variant of another consonant. It is not surprising that combinations of neutral consonants are also neutral, and combinations of non-palatal consonants are non-palatal. In the latter category we generally find palatalisation of one of the consonants only: the first in *tk*, the second in *kn*, both in *nk*, *nt* (where the palatal nasal is not contrastive before *ś* and *c*). Of the cluster *lk* normally the second consonant is palatalised, but sometimes rather the first. Only *şt* is palatalised to something different from its parts: *ś* or *śś*, whereas *t* normally palatalises to *c* (as a palatal consonant, *ş* has no palatal counterpart). In clusters with combined neutral and non-palatal consonants, palatalised variants are attested for *tp*, *tr*, *tw*, *nw*, *pl*, *lp*, *lw*, *sp*, *t^sp*; in all cases, the non-palatal consonant is palatalised in the normal way and the neutral one remains unchanged. Possibly, *tr* and *sr* are neutral in some cases, but the evidence is not overwhelming (see p 67). Although *n* and *l* (and *nw* and *lw*) are certainly non-palatal in some categories, they are not in the 'ä/a-present or subjunctive: there they have palatal variants, but throughout the paradigm and not alternating with unpalatalised *n* and *l*.

Vowel grades after palatalised consonants are the following (all grades occur after non-palatal consonants as well):

	initial	medial
ä	ä ā-√-prt.; sbj., red.-prt. (root initial); 'ä/a-prs./sbj.	'ä/a-prs./sbj.
a	ä Ø-√-prt.; red.-prt. (reduplication initial); Ø-prs.	
ā	strong ipf.	ipf.

INVENTORY OF TOCHARIAN B:

initial palatalisation in the ə|a-root preterite

In the ə|a-root preterite, the initial of the root is palatalised in the whole active, but not in the middle. Palatalised initials are attested in: {kləntʰá-} 'sleep', {lámá-} 'sit', {lāwá-} 'send', {lāwka-} 'shine', {sətká-} 'cross', {sərsá-} 'know', {səwtká-} 'embody', {scəmá-} 'stand', {cərká-} 'let go', {sətá-} 'strew', {sərká-} 'rob', {səlá-} 'bring'. The following preterites conform exactly to the same pattern except for the initial palatalisation, so that we can classify their initial as unpalatalisable: {krəstá-} 'cut off', {tʰənká-} 'rise', {pəwtká-} 'assign to', {pləská-} 'think', {mərsá-} 'forget', {rəwtká-} 'move (tr.)', {srəwká-} 'die'. There are some verbs with initials that are certainly palatalisable where we do not find palatalisation, so that there must be a subcategory without palatalisation (see Winter 1980b: 553-555): {kəryá-} 'buy', {kəlpá-} 'obtain', {kʷəlá-} 'fail', {sətká-} 'spread', and probably {spərká-} 'disappear'. Many of these seem to be intransitive, but not all (i.e. 'buy', 'obtain'). Some of the verbs with unpalatalisable initial listed above might belong to the subcategory without palatalisation, e.g. {mərsá-} and {srəwká-}, which both form the same *e*-present as the other verbs with unpalatalised palatalisable initials ({srəwká-} 'die' is also intransitive, but {mərsá-} is the only transitive verb in that present class).

Three verbs display irregularities that seem to be connected to the palatalisation pattern discussed above. In the preterite {ñətká-} 'prompt' we find ñ throughout the preterite, also in the middle. In {pərsá-} 'sprinkle' we find an <i>e</i> vowel in the 3pl. *pīrsāre* that must reflect a prehistoric /p/, but is inexplicable on the synchronic level. In {pəlká-} 'look' we find medial palatalisation that might go back to initial palatalisation of the type {pləká-}, but since the other stems clearly have the shape {pəlká-}, i.e. sbj.sg. {palka-} etc, this formation is irregular synchronically.

initial palatalisation in the *a*-grade ə|a-root preterite

Three verbs with an ə|a-root preterite with *a*-grade in the root display palatalisation of the initial: {plāwá-} 'complain', {lāká-} 'see', and {lāwá-} 'rub'. A fourth verb has a palatal initial throughout: {sāwá-} 'eat'. On the basis of middle forms of {lāká-} with palatalised initial, we have to assume that in this class initial palatalisation was found throughout the preterite (not only in the active).

initial palatalisation in the *s*-preterite

In the *s*-preterite, palatalisation is an isolated phenomenon. All cases concern *l* and *l*-clusters, and there is no difference between active and middle: {p^e/ə́lk-Ø/sa-} of *pəlk-*

'burn (tr.)', {plēw-_{sa}-} of *pləw*- 'float', {l^e/_əwk-_{sa}-} of *ləwk*- 'shine', {l^e/_əwt-_{sa}-} of *ləwt*- 'drive away'. In one verb we find variation, between {plenk-_{sa}-} and {plēnk-_{sa}-} of *plənk*- 'sell', where the forms with palatalisation seem to be more recent than the forms without. There are also two verbs with *l* and *l*-clusters where we do not find palatalisation: {pletk-_{sa}-} of *plətk*- 'increase' and {leytk-_{sa}-} of *ləytk*- 'remove'. Unlike all other palatalised forms, {p^e/_əlk-_{sa}-} has medial instead of initial palatalisation.

One irregular verb has a preterite with some similarity to the *s*-preterite: 'come'. The middle is a normal *s*-preterite {kəm-*sa*-}, but the active is different: it is an ^ə/_e-present-preterite. This present-preterite resembles the *ə*|*Ø*-root subjunctive in having *e* : *ə* gradation in the root, but the distribution of the grades is different. In this paradigm, we find palatalisation in the forms with *e*-grade, i.e. the 2sg. and 3sg., both {sem-*Ø*}, whereas the other forms have no palatalisation and *ə*-grade, i.e. 1pl. /kmem/ {kāmémə}, 3pl. /kāmen/ {kāmén} and probably 1sg. /kāmaw/ {kāmé-w}.

initial palatalisation in the causative preterite

The causative preterite is the category with most instances of palatalisation in Tocharian B. In this category, some initials that are unpalatalisable elsewhere are palatalised nonetheless, and some initials have a second palatalisation product. Even in this category, however, not *all* initials are palatalisable. Palatalised initials are: *k* ~ *ky*, *k* ~ *ś*, *kl* ~ *kġ*, *t* ~ *c*, *n* ~ *ñ*, *p* ~ *py*, *m* ~ *my*, *l* ~ *ġ*, *w* ~ *y*, (*w* ~ *wy*), *šp* ~ *špy*, *st* ~ *śc*, *t^s* ~ *t^sy*. Of these, *ky*, *py*, *my* and *wy*, *špy* and *t^sy* are attested only in this category, and *ky* and *wy* (the latter listed in brackets because it occurs only once) are found next to less transparent palatalised counterparts of *k* and *w*, namely *ś* and *y*, so that they are clearly secondary. Because *py* is treated as a cluster in reduplication, but we would in fact rather expect it to be a single consonant, the phonological status of *ky*, *py* etc is not entirely clear, and they will not be transcribed in a special phonological notation, but just as they are written. The initials *tr*, *pr*, *mr*, *y*, and *r* resist palatalisation even in this category.

{ñyārsa-} of *nərs*- 'urge' is attested only once, so that its "double" palatalisation, i.e. *n* → *ñ* → *ñy*, need not have been a systematic phenomenon. It is striking, certainly in the light of the doublet for *k*, i.e. *ś* and *ky*, that we find *ś* throughout the verb in {śánmya-} of *śanm*- 'bind' and {śārsa-} of *śars*- 'let know', whereas {śátka-} of *kətk*- 'let cross' is paired with a present-subjunctives with variation between *ś*- and *k*-. Spread of palatalisation is also attested for {śārka-} of *šark*- 'surpass'; variation in other stems has a parallel in {śál(l)a-} of *šal*- 'throw down'. The cluster *špy*, listed above, is attested twice in {špyārka-} of *špark*- 'let perish' and {špyárta-} of *špərtt*- 'move (tr.)', and in both verbs all other stems have *šp*, which is of course a palatalised initial in itself (both have a base verb with *šp* next to them; *špənt*- 'make trust' is completely parallel, but a preterite {špyánta-} is not attested).

initial palatalisation in the causative present

If palatalisation is morphologically distinctive in a causative, it is always the preterite that has a palatalised initial whereas the present is unpalatalised. Therefore, initial palatalisation is *not* distinctive for the causative present (see also Winter 1980b: 555-556). We may list the following cases:

- 1) with variation between palatalised and non-palatalised forms: {śátkə^{ssə}/ske-} ~ {kátkə^{ssə}/ske-} of *kātk-* ‘let cross’, {špartə^{ssə}/ske-} ~ {spartə^{ssə}/ske-} of *spartt-* ‘move (tr.)’, {ñəwskə^{ssə}/ske-} ~ {nəwskə^{ssə}/ske-} of *nəwsk-* ‘oppress’;
- 2) with palatalisation throughout, but no palatalisation in the base verb: {śərsə^{ssə}/ske-} of *śərs-* ‘let know’, {śələ^{ssə}/ske-} of *śəl-* ‘throw down’ (variation *s* ~ *ś* attested in the preterite participle), {śəwkə^{ssə}/ske-} of *śəwk-* ^{caus.} ‘let hang down’, {špəntə^{ssə}/ske-} of *špənt-* ‘make trust’, {špərkə^{ssə}/ske-} of *špərk-* ‘let perish’, {śərkə^{ssə}/ske-} of *śərk-* ‘surpass’;
- 3) with palatalisation throughout, but without a corresponding base verb: {šəna^{ssə}/ske-} of *šən-* ‘count’, {śənmə^{ssə}/ske-} of *śənm-* ‘bind’.

In all cases, the palatalisation product is one that occurs outside the causatives, too, and not one of the series *ky*, *py*, *my* etc.

initial palatalisation in *e*-presents

In a small group of *e*-presents we find *e*-grade in the root, and in two of these this combines with initial palatalisation: {ñewə-} of *nəw-* ‘roar’ and {ləwə-} of *ləw-* ‘send’. Since {tʰenke-} of *tʰənk-* ‘rise’ is completely parallel, we can classify *tʰ* as unpalatalisable. In one *o*/*e*-subjunctive we also find initial palatalisation, but no *e*-grade, so that it is difficult to see whether it is parallel: {cəm^ə/e-} of *təm-* ‘be born’. {ləwke-} of *ləwk-* ‘shine’, which seems to underly 3sg.mid. *lyuketrä* B46a7, is difficult; many of the forms ascribed to this verb are in fact uncertain and the stems do not fit together.

initial palatalisation in *ʔ*/*e*-presents and subjunctives

Initial palatalisation is found both in *ʔ*/*e*-presents and in *ʔ*/*e*-subjunctives. In presents, it is found before *e*-grade, as in the following examples: {klép^ə/e-} of *klep-* ‘touch’, {klén^ə/ke-} of *klənk-* ‘doubt’, {cen^ə/ke-} of *tənk-* ‘check’, {ceś^ə/ke-} of *tək-* ‘touch’ and {plē^{ccə}/tke-} of *plətk-* ‘increase’. {śew^ə/ke-} of *kəwk-* ‘call’ may be added, although it could theoretically have *a*-vocalism (both are spelled <au>³¹). The following verbs have the same *e*-grade and since their initials are unpalatalisable elsewhere, we have to assume that they are here as well: {tre^{ssə}/ske-} of *tresk-* ‘chew’, {peññ^ə/e-} of *pənn-* ‘stretch’, {per^ə/ke-} of *perk-* ‘peer’, {men^ə/se-} of *mens-* ‘be sad’, {meł^ə/e-} of *meł-* ‘grind’ and {re^{ssə}/ske-} of *resk-* ‘flow’. The /y/ of {cepy^ə/e-} of *tep-*?

³¹ Cf for instance {śay^ə/e-, (śaw^ə/e-)}, which does not belong here because it clearly has *a*-vocalism, e.g. 1sg. *śāyau*.

'step' deviates, but otherwise it would fit here, too; {*klew*^{sə/se-}} of *klews*- 'hear' has all the formal characteristics, but functions as present-subjunctive.

In the following *ə*-grade formations it seems impossible to distinguish between presents and subjunctives on formal grounds: presents are {*cə*^{ncə/nke-?}} of *cənk*- 'please', {*cəw*^{sə/ke-}} of *təwk*- 'be hidden', {*cəmp*^{ə/e-}} of *cəmp*- 'can', {*ñə*^{ssə/ske-}} of *ñəsk*- 'desire', {*lə*^{sə/ke-}} of *lək*- 'lie', and {*šə*^{mə/e-}} of *šə**m*- 'sit' (suppletive, no unpalatalised stems beside it); subjunctives are {*ləw*^{sə/ke-}} of *ləwk*- 'shine', {*plən*^{cə/ke-}} of *plənk*- 'sell', and {*šə*(*n*)^{mə/e-}} of *kə**m*- 'come'. Because their stem pattern is similar to that of {*ləw*^{sə/ke-}} and {*plən*^{cə/ke-}}, we can assume that {*trəy*^{sə/ke-}} of *trəyk*- 'err', {*wəy*^{sə/ke-}} of *wəyk*- 'drive off', and {*tšə*^{ršə/ke-}} of *tšərk*- 'burn (tr.)' have unpalatalisable initials ({*pəl*^{sə/ke-}} ~ {*pə*^{šə/ke-}} of *pəlk*- 'burn (tr.)' can also be compared, but here we find variation between *l* and *š*). The initial palatalisation of the present {*ləy*^{kə/se-}} of *ləyk*- 'wash' is clearly secondary vis-à-vis its variant {*ləy*^{kə/se-}}, and the following presents and subjunctives have a palatalised initial after other stems of the same verb: prs. {*ləwt*^{sə/ske-}} of *ləwt*- 'drive away', prs. {*šən*^{sə/se-}} of *šən*- 'count', prs. {*šərp*^{sə/se-}} of *šərp*- 'point out', sbj. {*šərp*^{ə/e-}} of the same verb, and sbj. {*špə*^{ršə/ke-}} of *špərk*- 'let perish'.

One verb has initial palatalisation *only* in the *ssə/ske*-present, which is without parallels whatsoever: {*yə*(*sə*)^{ssə/ske-}} of *wəs*- 'wear' (the *sə* is put in brackets because it is not visible in any attested present form, but needs to be there to connect it to the root *wəs*-, see e.g. inf. *wəstsi*).

medial palatalisation in ^ə/*e*-presents and subjunctives

All cases of medial palatalisation with the ^ə/*e*-suffix concern *k*, *t*, *s* and clusters with one of them as the last consonant: {*ak*^{sə/se-}} of *aks*- 'announce', {*ay*^{sə/ke-}} of *ayk*- 'know', {*a*^{sə/se-}} of *as*- 'bring', {*ka*^{ccə/tke-}} of *kətk*- 'be glad', {*kə*^{rsə/ske-}} of *kə**rsk*- 'shoot', {*klew*^{sə/se-}} of *klews*- 'hear', {*cə*^{ncə/nke-?}} of *cənk*- 'please', {*cen*^{sə/ke-}} of *tənk*- 'check', {*ce*^{sə/ke-}} of *tək*- 'touch', {*ñə*^{ssə/ske-}} of *ñəsk*- 'desire', {*trəy*^{sə/ke-}} of *trəyk*- 'err', {*tre*^{ssə/ske-}} of *tresk*- 'chew', {*na*^{ssə/ske-}} of *nəsk*- 'bathe', {*pə*^{ssə/ske-}} of *pəsk*- 'protect', {*pəl*^{sə/ke-}} of *pəlk*- 'burn', {*plən*^{cə/ke-}} of *plənk*- 'sell', {*məw*^{sə/se-}} of *məws*- 'lift', {*men*^{sə/se-}} of *məns*- 'be sad', {*yə*^{ssə/ske-}} of *yəsk*- 'beg', {*yə*^{ršə/se-}} of *yə**rs*- 'revere', {*re*^{ssə/ske-}} of *resk*- 'flow', {*lan*^{sə/se-}} of *lans*- 'work', {*lə*^{sə/ke-}} of *lək*- 'lie', {*ləw*^{sə/ke-}} of *ləwk*- 'shine', {*wəy*^{sə/ke-}} of *wəyk*- 'drive off', {*šew*^{sə/ke-}} of *kəwk*- 'call', {*špə*^{ršə/ke-}} of *špərk*- 'disappear', {*tšə*^{ršə/ke-}} of *tšərk*- 'burn (tr.)', and the ubiquitous ^{sə/se-} and ^{ssə/ske-} presents. The examples are straightforward except for *nk*, which in this category palatalises both to *ns* and to *nc* (the same palatalisation product as found in the imperfect-optative, see below, p 75): with *nc* we find {*cən*^{cə/ke-?}} 'please' (not totally certain because the *e*-variant is not attested) and {*plən*^{cə/ke-}} 'sell';³² with *ns*, {*cen*^{sə/ke-}} 'check'.

³² For some reason, it is often argued that *k*-finals are not palatalisable. While Hackstein does away with most of the examples, he insists that *-ñk*- is not palatalisable (1995: 149-150). As I

We find no palatalisation alternation in the following cases: {kañm^ə/e-} of *kañm*- ‘play’, {klep^ə/e-} of *klep*- ‘touch’, {cəmp^ə/e-} of *cəmp*- ‘can’, {peññ^ə/e-} of *pənn*- ‘stretch’, {mel^ə/e-} of *mel*- ‘grind’, {weñ^ə/e-} of *weñ*- ‘speak’, {say^ə/e-} of *say*- ‘live’, {śa(n)m^ə/e-} of *kəm*- ‘come’, {šərp^ə/e-} of *šərp*- ‘point out’. Of these, *p* and *m* are clearly unpalatalisable, whereas *ñ*, *y* and *l* cannot be palatalised because they are already palatal.

The ^ə/e-preterite does not give a different picture: {ləc^ə/te-} of *lət*- ‘go out’ conforms to the regular pattern, and {ya^{śə}/ke-} of *yok*- ‘drink’ too, although the *e*-variant of the latter is not attested. *kəm*- ‘come’ is irregular because of its gradation and palatalisation in the active singular of the preterite, but with the forms attested, it seems that the gradation of the suffix is completely regular; of course, its root-final *m* is unpalatalisable.

A peculiarity of the ^{ssə}/ske-suffix is that its palatalised variant reduces to *s* instead of *š* before *t* (before a consonant we would never expect a geminate *ss*, but rather a single *š*). This development is not understandable from the palatalisation patterns described in this section (on the historical explanation, see Couvreur 1947: 63 and 4.5.5, p 413). One verb even consists of nothing more than this suffix, or rather it has a root *sk* with an ^ə/e-suffix which gives the same result: {^{ssə}/ske-}. In this verb, too, we find reduction to *s*, i.e. 3sg. *ste*, 3sg.suff. *star*- (see also 2.5.1, p 54).

medial palatalisation in the ^əy-sbj. (and the ipf.-opt.)

There are no indications that the subjunctive ^əy-suffix has other palatalisation effects than the imperfect-optative ^əy-suffix. As subjunctives we may list {akl^əy-} of *akl*- ‘learn’, {awkš^əy-} of *awks*- ‘grow’, {kərs^əy-} of *kərst*-? ‘chop’, {kəlp^əy-} of *kəlp*- ‘steal’, {lal^əy-} of *lal*- ‘make effort’, {wəš^əy-} of *wəš*- ‘dwell’, whereas {šer^əy-} of *šer*- ‘hunt’ clearly has an unpalatalisable *r*. Imperfect-optatives are very frequent, but many are formed to stems in *e*, *o* or *a*: the first two block palatalisation before disappearing,³³ and the third gives *oy*. Many others are formed to stems in *sk*, *s*, or *ññ*, with well-known palatalisation effects. Worth mentioning is the lack of palatalisation after *-w* (e.g. {kəw^əy-} of *kəw*- ‘pour’, {pləw^əy-} or {pləw^əy-} of *pləw*- ‘float’, or {rəw^əy-} of *rəw*- ‘open’), the palatalisation product of such rare clusters as *tt* in {təcc^əy-} of *təs*- ‘put’ (sbj. {təttá-}) and *tk* in {pləcc^əy-} of *plətk*- ‘increase’, and the palatalisation product of *nk*, which is only *nc* in this category, not *nś* as in ^ə/e-present

understand his argumentation, this view is based on the late colloquial form *plyasi* Ot12.9, which he derives from **plyañc-tsi* by sound law: **plyañc-tsi* > **plyañk-tsi* > **plak(t)si* > *plyasi*. Obviously, there is neither evidence nor need for the intermediate form **plyañktsi*, so that there is no reason whatsoever to assume that *nik* is not palatalisable: *plasi* may derive from **plyaśsi* < **plyamśtsi* (Peyrot 2008a: 70, 86-87).

³³ In *o*-presents with *o*-syncope, if that is how this class should be called, the *o* disappeared before blocking palatalisation, as we see from {poroš^əy-} and {wološ^əy-}.

and $\text{'}/e\text{'}$ -subjunctives (see above, p 74): {encáy-} of *enk-* ‘take’, {kləwtáncáy-}³⁴ of *kləwtk-* ‘turn (intr.)’, {kləncáy-} of *klənk-* ‘doubt’, {təncáy-} of *tənk-* ‘check’, {trəncáy-} of *trənk-* ‘lament’, {trəncáy-} of *trenk-* ‘cling’.

medial palatalisation in the preterite

Medial palatalisation in *a*-preterites derived from $\text{'}/e\text{'}$ -subjunctives like *sbj.* {ak^{sa}/se-} → *prt.* {akš-á-} of *aks-* ‘announce’ does not need special comments because it is completely parallel to the medial palatalisation in $\text{'}/e\text{'}$ -presents and subjunctives discussed above. However, there are two verbs where we find palatalisation of a different kind: *trənk-* ‘lament’ and *lənk-* ‘hang’ form root present-subjunctives {trənk-} and {lənk-}, respectively, combined with derived preterites *with* palatalisation (that is, that palatalisation is *not* found in the present-subjunctive stem), {trəncá-} and {ləncá-}. {cəmpya-} of *cəmp-* ‘can’ might be parallel, but its root-final *-p* is normally unpalatalisable, so that we would expect that <py> stands for /py/ rather than (secondary) /p̃/.

overview

[-pal]	[+pal]	
<i>k</i>	<i>ś</i>	$\text{'}/a\text{'}$ -√-prt.; caus.-prt.; $\text{'}/e\text{'}$ -prs./sbj. (initial); prs./sbj. (medial)
	<i>ky</i>	caus.-prt.
<i>kl</i>	<i>kĭ</i>	$\text{'}/a\text{'}$ -√-prt.; caus.-prt.; $\text{'}/e\text{'}$ -prs. (initial); $\text{'}/y\text{'}$ -sbj.
<i>ks</i>	<i>kš</i>	prs./sbj. (medial); $\text{'}/y\text{'}$ -sbj.
<i>t</i>	<i>c</i>	$\text{'}/a\text{'}$ -√-prt.; caus.-prt.; $\text{'}/e\text{'}$ -sbj. (initial); $\text{'}/e\text{'}$ -prs. (initial)
<i>tk</i>	<i>cc</i>	prs./sbj. (medial); ipf.-opt.
<i>tt</i>	<i>cc</i>	ipf.-opt.
<i>n</i>	<i>n̄</i>	$\text{'}/a\text{'}$ -√-prt. (irregular); caus.-prt.; <i>e</i> -prs. (initial); $\text{'}/e\text{'}$ -prs. (initial; irregular)
<i>nk</i>	<i>nś</i>	prs./sbj. (medial)
	<i>nc</i>	prt. (medial); prs./sbj. (medial); ipf.-opt.
<i>ns</i> ³⁵	<i>nš</i>	prs./sbj. (medial)
<i>p</i>	<i>py</i>	caus.-prt.
<i>pl</i>	<i>pĭ</i>	$\text{'}/a\text{'}$ -√-prt. (<i>a</i>); $\text{'}/\emptyset\text{'}$ -√-prt.; $\text{'}/e\text{'}$ -prs./sbj. (initial); sbj. (initial)
<i>m</i>	<i>my</i>	caus.-prt.
<i>rk</i>	<i>rś</i>	prs./sbj. (medial); $\text{'}/y\text{'}$ -sbj.
<i>rs</i>	<i>rš</i>	prs./sbj. (medial)
<i>rsk</i>	<i>ršš</i>	prs./sbj. (medial)
<i>l</i>	<i>ĭ</i>	$\text{'}/a\text{'}$ -√-prt.; $\text{'}/a\text{'}$ -√-prt. (<i>a</i>); $\text{'}/\emptyset\text{'}$ -√-prt.; caus.-prt.; <i>e</i> -prs. (initial); $\text{'}/e\text{'}$ -

³⁴ Since it is cited only by Thomas (1964: 189), this is possibly a ghost form.

³⁵ Alternates with *nt*^s.

[-pal]		[+pal]
		prs./sbj. (initial); 'ay-sbj.
<i>lk</i>	<i>lś</i>	prs./sbj. (medial)
	<i>ĺk</i>	ǝ a-√-prt. (medial); ǝ Ø-√-prt. (medial?)
<i>lp</i>	<i>ĺp</i>	'ay-sbj.
<i>w</i>	<i>y</i>	caus.-prt.
	<i>wy</i>	caus.-prt.
<i>šp</i>	<i>špy</i>	caus.-prt.
<i>s</i>	<i>š</i>	caus.-prt.; 'ǝ/e-prs. (initial; irregular); prs./sbj. (medial); 'ay-sbj.
<i>sk</i>	<i>šš</i>	prs. (medial); sbj. (medial)
<i>st</i>	<i>śc</i>	ǝ a-√-prt.; caus.-prt.
<i>(sp)</i>	<i>šp)</i>	caus.-prs. (irregular)
<i>ss</i>	<i>šš</i>	prs. (medial)
<i>t^s</i>	<i>t^sy</i>	caus.-prt.

The description of the consonant classes is more difficult for Tocharian B than for Tocharian A because there is more variation: some consonants are neutral in one category, but non-palatal in another, for instance. Of the single consonants, only *r* is always neutral, whereas *k*, *t*, *s* are always non-palatal; *c*, *ñ*, *ś* and *š* are always palatal. Of the remaining consonants, *p*, *m*, *w* and *t^s* are mostly neutral, but they have secondary palatal variants *py*, *my*, *wy* and *t^sy* in the causative preterite; *w* also has a primary palatal variant *y*, but this is so rare outside the causative preterite, that *w* is best classified with *p*, *m* and *t^s*. *y* is mostly neutral, but it also occurs as the palatal variant of *w*. *n* and *l* are "normal" non-palatal consonants, but their palatal variants *ñ* and *ĺ* are sometimes found where we expect non-palatal *n* and *l*.

Neutral *r* neutralises all clusters if it is the last consonant and it has no special effect if it is the first. Combinations of non-palatal consonants are non-palatal, with only the second consonant palatalising in the normal way in *kl*, *ks*, and both palatalising in *tk*, *sk*, *st* to *cc*, *šš*, *śc*; the geminates *tt* and *ss* palatalise to *cc* and *šš*, whereas both consonants palatalise in *nk* and *ns*, although the palatalised *n* is not distinctive before *ś*, *c* or *š*; *lk* palatalises to *ĺk* in the ǝ|a-root preterite and to *lś* before the 'ǝ/e-suffix. The clusters *ns* and *ls* are noteworthy because they can receive an epenthetic *t* that does not block the palatalisation to *nš* and *lš*, i.e. this <ts> does not behave like other *t^s* <ts>. The following clusters combining neutral and non-palatal consonants are non palatal: *pl*,³⁶ *lp*, *sp*; neutral is *nm* (and *ñm* as well).

Vowel grades after palatalised consonants are the following (all grades occur after non-palatal consonants as well):

³⁶ Although it seems to be unpalatalisable (neutral) in {plǝskǝ-}; probably, this is a morphological problem, where this stem is to be analysed as {pǝlskǝ-}, but the subjunctive as {plǝ^ǝ/šska-}.

	initial	medial
<i>ə</i>	<i>ə a</i> -√-prt.; 'ə/-prs./sbj	'ə/-prs./sbj.; 'əy-sbj.; 'əy-ipf.-opt.
<i>a</i>	<i>ə a</i> -√-prt. (<i>lyāka</i> -type); caus.-prt.	
<i>e</i>	<i>ə Ø</i> -√-prt. (irregular); <i>e</i> -prs.; 'ə/-prs.	

For both languages, some very general tendencies can be noted:

- the most regularly palatalisable consonants are *k*, *t*, *s*;
- the least palatalisable consonant is *r*;
- *n* and *l* are funny in being palatalised too often;
- the categories with most palatalisation are probably the *s*-preterite of Tocharian A and the causative preterite of Tocharian B, with the *ä|ā*- or *ə|a*-root preterite as a good second in both languages;
- the most frequent vowel grade that follows palatalisation is TA *ä*, TB *ə*.

All in all, it is striking indeed that in languages where morphological palatalisation plays such an important role so many consonants cannot carry this distinction and so many others show peculiarities.

2.5.5 SUPPLETION

There are almost no defective verbs in Tocharian; that is, there are no verbs that lack certain stems such as for instance the preterite or the present. Although many verbs in Tocharian B and some in Tocharian A have no distinct subjunctive stem, these verbs are not defective because with those verbs the present is just used instead of the subjunctive (termed “present-subjunctive” in this work). Thus, verbs with a present-subjunctive are fully functional and not defective.

In contrast, suppletion is quite common in both languages, and clearly more so in Tocharian A than in Tocharian B. In most cases, suppletion follows a very regular pattern: a suppletive verb consists of two roots, one supplying the present stem, the other supplying all other stems (subjunctive, preterite, preterite participle and imperative).

Tocharian A			Tocharian B		
meaning	present stem	other stems	meaning	present stem	other stems
‘lead’	{ <i>äśä</i> / <i>ka</i> -}	{ <i>wä</i> -}	‘lead’	{ <i>aśä</i> / <i>ké</i> -}	{ <i>waya</i> -}
‘stand’	{ <i>käl</i> -}	{ <i>štāmā</i> -}	‘stand’	{ <i>kəḷə</i> / <i>e</i> -}	{ <i>stāma</i> -}
‘call’	{ <i>ken</i> -}	{ <i>kāka</i> -}	‘call’	{ <i>kwa</i> -}	{ <i>kaka</i> -}
‘speak’	{ <i>tränk</i> -}	{ <i>weñ</i> -}	‘be’	{ <i>nes</i> -}	{ <i>taka</i> -}
‘be’	{ <i>nas</i> -}	{ <i>tāka</i> -}	‘sit’	{ <i>ṣəmə</i> / <i>e</i> -}	{ <i>ləma</i> -}
‘bring’	{ <i>pärä</i> / <i>a</i> -}	{ <i>kāma</i> -}			
‘go’	{ <i>y</i> -}	{ <i>kälkā</i> -} ³⁷			

³⁷ The imperative is irregular, cf below.

Tocharian A

meaning	present stem	meaning
‘drink’	{yok-}	{t ^s äwkā-}
‘do’	{y ^{pa} /a-}	{yām-}
‘see’	{lākā-}	{pālka-} ³⁸
‘eat’	{śāwā-}	{tāpa-}
‘sit’	{śāmā/a-}	{lāmā-}

Both languages exhibit deviating patterns for the verb ‘give’: the present and the subjunctive stems go together and are different from the preterite, whereas the imperative is irregular and difficult to analyse. As concerns the preterite participle, the two languages diverge: it is formed from the present-subjunctive root in TB, but from the preterite root in TA.

‘give’:	sbj.	prs.	prt.	prt.ptc.	ipv.sg.	ipv.pl.
Tocharian A	{āy-}	{āy ^{śā} /sa-}	{wäs-}	wawu	paṣ	pac
Tocharian B	{ay-}	{ay ^{śś} /ske-}	{wəs- ^o /sa-}	āyu, āyoṣ	pete	petso, petes

The word for ‘rain’ has a unique pattern in both languages, with a present TA {säw-}, TB {säwa-}, other stems TA *swāsā-*, TB *swasa-*. To a lesser extent, the same is true of TA *täs-*, TB *täs-* ‘put’. As in both verbs the stems clearly go back to one root, they are not suppletive in my analysis, however.

In Tocharian B there are some other instances where suppletion deviates from the standard pattern, and also some instances where the suppletion is not perfect, i.e. where it is difficult to tell which stems belong to which verb. In these cases, one could possibly speak of defective rather than suppletive verbs.

TB *lak-* ‘see’ seems to be a fully-fledged verb, with an active sbj. {lāka-}, a middle prs.-sbj. {lāka-} and an active prs. {lāka^{śś}/ske-} (on this peculiar situation, cf 4.4.5, p 395 and Peyrot forth.d), a prt. {laká-}, and a prt.ptc. *lyelyaku*, *lyelyakoṣ*. The imperative is from a different root, however: {p^á/lka-}, from the root *pālka-*. Not only is it strange to have a suppletive root only in the imperative, the root *pālka-* has other stems, too, namely a sbj. {p^á/lka-}, a prt. {pālka-}, and a prt.ptc. *pālkau*, *pālkoṣ*; strikingly, *pālka-* has no present.

	<i>lak-</i> (middle)	<i>lak-</i> (active)	<i>pālka-</i>
present			
subjunctive	prs.-sbj. {lāka-}	{lāka ^{śś} /ske-}	
preterite		{laká-}	{p ^á /lka-}
preterite participle		<i>lyelyaku</i> , -oṣ	{pālka-}
imperative		{p ^á /lka-}	<i>pālkau</i> , -oṣ

³⁸ Irregularly, the imperative is {-lākā-}, e.g. sg.mid. *pālkar* etc (cf 2.5.5, p 78).

Tocharian B *y-* ‘go’ also deviates from the standard suppletive pattern: the present-subjunctive and the imperfect are formed from the root *y-*, and the preterite participle *yku*, *ykuweš* seems to be related to the same root.³⁹ The preterite is formed by two different roots, *mäs-* for the singular and *mäyt-* for the plural (*s*-preterite stem {meyt-} /mayt-/); although – surprisingly – some present and subjunctive stem forms of the root *mäyt-* are attested, too, no preterite singular forms competing with the stem *mäs-* are attested. The imperative is irregular. In Tocharian A, all stems fit a normal suppletive pattern, except for the irregular imperative.

	Tocharian A			Tocharian B		
	sg.	pl.		sg.	pl.	
present	{y-}		ipf. {ye-}			
sbj.	{kalkā-}	{kalkā-}	opt. {kalkäy-}	prs.-sbj. {y-}	{yən-, y-}	ipf. {yey-} = opt.?
preterite	{kalkā-}	{kalkā-}		{mäs-}	{meyt-}	
prt. ptc.		<i>kälko</i>		<i>yku</i> , <i>ykuweš</i>		
ipv.	<i>piš</i>	<i>pic</i> , <i>picäs</i>		<i>paš</i>	<i>pcīso</i>	

The Tocharian B verb for ‘take’ follows the regular suppletive pattern except for the subjunctive stem. The present stem {pər^ə/e-} is supplied by the root *pər-*, but the preterite, preterite participle and imperative stems by the root *kama-*. Accordingly, one would expect the subjunctive to be {káma-}, but it is not attested. Instead, the subjunctive is supplied by the middle of *ay-* ‘give’ (Schmidt 1974: 360-367), which indeed has middle forms only in the subjunctive and optative and in no other stem.⁴⁰

Within the history of Tocharian B, a new case of suppletion arose when the present and preterite stems of *yam-* ‘do’ lost the first syllable /ya/, so that an etymological relationship between the present and the preterite with a root *māsk-* on the one hand, and the subjunctive, preterite participle and imperative stems with a root *yam-* on the other, cannot have been visible any longer for the speakers. Since the present and the preterite had the same root, this pattern did not follow the standard suppletion type (Peyrot 2008a: 160-161):

	classical	late	vs	classical	late
prs.	{yam ^ə ssə/ske-}	→ {mā ^ə ssə/ske-}	subjunctive	{yamə-}	→ {yamə-}
prt.	{yam ^ə šša-}	{mā ^ə šša-}	prt. ptc.	<i>yāmu</i> , -oš	<i>yāmu</i> , -oš
			imperative	{-yam ^ə /sa-}	{-yam ^ə /sa-}

³⁹ For possible optative use of the imperfect, as well as the root variant *yən-*, see 4.3.4 (p 366).

⁴⁰ The meaning conveyed by the middle is also attested for voice-indifferent infinite forms, such as the gerund *ailye* (Peyrot 2008b: 96), the inf. *aitsi* (Schmidt 1974: 364-365), etc, all formed from the subjunctive stem. Thus, as far as the paradigm of *ay-* is concerned, the middle forms are unambiguously suppletive to *pər-* ‘take’, but the infinite forms can be “regular” forms of *ay-* ‘give’, too.

Suppletion has a heavy functional load in morphology, as it can override other stem distinction principles. In order to understand the formation of particular stems, it is sometimes even necessary to disregard suppletion, as it would leave us with some unique irregularities that can neatly be resolved otherwise. For instance, TA *trānk-* ‘say’ supplies the present of *weñ-*, but in its formation it is a subjunctive: its imperfect {crank- $\emptyset$ /sā-} is only understandable as an *s*-preterite.

It has become customary to cite suppletive verbs with the present root first, followed by other roots; thus, TB *pər-* + *kama-* (+ *ay-* [middle]) ‘take’ is normally listed under *p*.

2.5.6 REDUPLICATION

Reduplication is regularly found in certain preterite participles in both languages, and in the causative preterite in Tocharian A. In addition, it is found in one subjunctive formation in Tocharian B. Reduplication follows one formal pattern: a syllable starting with the same initial as the root, followed by a vowel, is prefixed to the root. In the majority of cases, the root initial is simple (i.e. a single consonant) and the reduplication syllable has exactly the same initial. If the root initial is a cluster, it is mostly only one of two⁴¹ that is the initial of the reduplication syllable, in Tocharian A always the first consonant, in Tocharian B mostly.

Even though the Tocharian A reduplication in the causative preterite often combines with initial palatalisation, it carries a heavy functional load, since the corresponding non-causative preterite may have initial palatalisation, too. The category that offers a good range of exact minimal pairs is the singular of the grading *ä|ā*-root preterite, e.g. 3sg. *śasārs* {śa-śārsā- $\emptyset$ } ‘(s)he let know’ vs *śārs* {śārsā- $\emptyset$ } ‘(s)he knew’, 3sg. *papārs* {pa-pārsā- $\emptyset$ } ‘(s)he let sprinkle’ vs *pārs* {pārsā- $\emptyset$ } ‘(s)he sprinkled’, 3sg. *rāritu* {ra-ritwā- $\emptyset$ } ‘(s)he connected’ vs *ritu* {ritwā- $\emptyset$ } ‘(s)he was connected’, 3sg.suff. *lyalymā-ṃ* {la-lāmā-n} ‘(s)he put it’ vs *lymā-ṃ* {lāmā-n} ‘(s)he sat down on it’, 3sg. *śasśām*, *śasām* {śa-(ś)śāmā- $\emptyset$ } ‘(s)he established’ vs *śām* {śāmā- $\emptyset$ } ‘(s)he stood up’. In the plural, the grading *ä|ā*-root preterite has *a*-grade, so that we do not find exact minimal pairs in the plural, e.g. 3pl. *sasātkār* {sa-sātkā-r} ‘they extended (tr.)’ vs *satkar* {satkā-r} ‘they were spread out’. Thus, preterite reduplication principally distinguishes causative preterites from non-causative preterites; the differences with other categories are much larger, e.g. the subjunctive not only lacks reduplication, it generally also has a different suffix, different endings, no palatalisation and a different root grade.

The form of Tocharian A preterite reduplication is relatively easy to describe. The reduplication vowel is always *a*, except when the root starts in *y* or *w* and the vowel *ä*: in that case, *ay* and *aw* surface as *e* and *o*, respectively. Thus we find

⁴¹ Three consonant initials are not attested.

1sg.mid. *yete* {ya-yätä-e} 'I adorned', 3pl. *wotār* {wa-wätä-r} 'they set up', whereas 3sg. *wawik* {wawikā-Ø} '(s)he removed' and 3pl. *w(a)wiwār* {wawipā-r} 'they made wet' keep their *aw* because of the following *i*. Instead of the attested 3sg.mid. *yairāt* {ya-yārā-t} MY3.8a5 '(s)he bathed' we would rather have expected *yerāt**. In the case of 2sg. *wotkašt* {wa-wātkā-št} 'you commanded' and 3pl. *wortar* {wa-wärtā-r} 'they threw', the root-final *ā* is weakened to *a*, apparently as if the stems contained no reduplication (1sg.mid. *wose-m* MY3.8a3 'I dressed her' may reflect either *wosa-* or *wosā-* {wa-wāsā-e}). The reduplication initial is the first consonant of the root, i.e. *s* for *sp* and *sr*, *p* for *pl* and *pr*, *t* for *tr*. The initial *py* may count as a cluster, as it is reduplicated with *p*, too; the digraph *ly* stands for a single consonant /l/ and, accordingly, it is reduplicated with *ly* /l/.

In both languages, the reduplication of the preterite participle has much less distinctive value because it is sufficiently marked by its suffix and its endings. In Tocharian A, the only ending of the preterite participle that recurs as a finite verbal ending elsewhere is the nom.sg.m. in *-u* (not its morphological variant *-o*). The finite ending *-u* in Tocharian A is a relic variant next to the regular *-wā* for the 1sg. of the *s*-preterite (Schmidt and Winter 1992). Since the *s*-preterite normally has *a*-grade, where the corresponding preterite participles have *ā*-grade, reduplication is only co-distinctive. This type of contrast is rare, also because the 1sg. ending *-u* is rare, of course, cf 1sg. *raku** {rak-u} vs ptc. *rarku* {ra-rāk-u}, or 1sg. *praku** {prak-u} vs ptc. *papārku* {pa-prāk-u}, where there is always an additional difference between *a*- and *ā*-grade.

The only verb I could find with a possible exact minimal pair is *māsk-* 'be', which forms an *s*-preterite (3sg. *māskās*), and apparently a participle *mamāsku*, so that we could expect a minimal pair 1sg. *māsku** vs ptc. *mamāsku*; however, it is not totally certain that *mamāsku* actually is the participle to the *s*-preterite. Strikingly, there are some ambiguous forms that lack reduplication. If they had been reduplicated, it would have been distinctive: the participles *aru*, *yāmu*, *epu* and *yomu* have an *s*-preterite beside them and the relic 1sg. would have exactly the same form.

A largely comparable, but not identical situation is found in Tocharian B. In Tocharian B, both nom.sg.m. endings of the participle, *-u* and *-au*, recur as finite endings, in principle both in the present and the subjunctive; in practice, only subjunctives offer minimal pairs or near minimal pairs. In the majority of cases, we do *not* find minimal pairs, as there is often a difference in ending (e.g. 1sg. *weñau* {weñ-e-w} 'I will say' vs ptc. *weweñu* {we-weñ-əw}), in root grade (e.g. 1sg. *preku* {prekə-w} 'I will ask' vs ptc. *peparku* {pe-prək-əw}, 1sg. *yopu* {yopə-w} 'I will enter' vs ptc. *yaipu* {ye-yəp-əw}, 1sg. *kewu* {kewə-w} 'I will pour' vs ptc. *keku** {ke-kəw-əw}).⁴²

⁴² Similarly, a difference in root grade and accent may mark the distinction in unreduplicated preterite participles, e.g. 1sg. *sraukau* {srāwka-w} 'I will die' vs ptc. *srukau* {srəwkā-w}, 1sg. *tsānkau* {tʰānka-w} 'I will rise' vs *tsānkau* {tʰənkā-w}.

Systematic minimal pairs are found with root subjunctives to both *a|Ø*-roots and *a|a*-roots. Of the first category no minimal pairs are attested, but we could expect 1sg. *plāku** ‘I will agree’ vs ptc. *applāku*, 1sg. *nāku* ‘I will reproach’ vs ptc. *nanāku* etc, whereas the second category is well represented indeed: 1sg. *kārpau** ‘I will descend’ vs ptc. *kakārpau*, 1sg. *kraupau** ‘I will gather’ vs ptc. *kakraupau*, 1sg. *klāyau** ‘I will fall’ vs ptc. *kaklāyau*, 1sg. *tākau* ‘I will be’ vs ptc. *tatākau*, 1sg. *spārttau* ‘I will turn’ vs ptc. *paspārttau*, probably 1sg. *skārau* ‘I will scold’ vs ptc. *kaskārau*,⁴³ etc. In addition, there are two incidental cases: 1sg. *śū* ‘I (will) eat’ vs ptc. *śeśu* and 1sg. *neku* ‘I will destroy’ vs *neneku* next to expected *nenku* (on these variants, cf Peyrot 2008a: 152–153). Since the root grade of 3sg. *kowän* ‘(s)he will kill’ is unique, it is difficult to tell whether the unattested 1sg. would be *kowu** or *kāwu**; in the latter case, it would be a minimal pair with the ptc. *kakāwu*. Ambiguous forms are the unreduplicated *aunu* ‘I will hit; hit’, *yāmu* ‘I will do; done’,⁴⁴ *āksau* ‘I will proclaim; proclaimed’, *āyu* ‘I will give; given’, *ālu* ‘I will keep away; kept away’, although with the exception of *yāmu*, both functions are not attested with certainty for any of them.⁴⁵

Theoretically, the 1sg. of the *s*-preterite could form minimal pairs with the feminine plural of the participle, but minimal pairs of this type are not attested, certainly also because the feminine plural of the participle is much less frequent than the nom.sg.m. It seems that here, as with the nom.sg.m., there are no minimal pairs because there is normally a difference in root grade, e.g. 1sg. arch. *yonwā* {yonm-wa} ‘I have obtained’ vs ptc. *yainmwa* {ye-yənm-wa} or 1sg. *prekuwa* {prek-wa} ‘I have asked’ vs ptc. *peparkuwa** {pe-prək-wa}. An ambiguous form would be e.g. *aipuwa* ‘I have covered; covered’ (attested in none of the two functions).

It must be stressed that the distinctive value of reduplication is much less important in syntax with the Tocharian B *wa*-forms than with all the others because in active use the subjects are always different: 1sg. vs f.pl. Thus, *prekuwa* ‘I have asked’ will have been clearly distinct from *peparkuwa* ‘they (f.) have asked’ in syntax

⁴³ None of the two is attested with certainty, but *k(a)skārau* or *k- skārau* IT524b1 must be at least one of them.

⁴⁴ Theoretically, IT92b3 *ñiś te ñemtsa pañākte saim yāmu* ‘I, with the name so and so, have made (will make) the Buddha my refuge’ is ambiguous, but the context shows that it is clearly *not* subjunctive, since it follows IT92a4 *ñiś te ñemtsa pañākte saim yamaskemar* ‘I, with the name so and so, make the Buddha my refuge’. In this particular case, we even happen to have the Sanskrit formulae: *gataḥ* ‘[I have] gone’ for *yāmu* (Härtel 1956: §4 on p 51, §6 on p 53) and *gacchāmi* ‘I go’ for *yamaskemar* (Härtel (1956: §4 on p 51, §6 on p 53). Cf the same text in Cp40-42b1-4 (Pinault 1994: 102–106).

⁴⁵ Whether *ālu* IT11a1 is a 1sg.sbj. form or a prt.ptc. has been the subject of a long discussion. It was unclear whether *al-* ‘keep away’ formed a root subjunctive or an *’ay*-subjunctive, so that a 1sg.sbj. *ālu* would tip the scales in favour of a root subjunctive, whereas it had to be a prt.ptc. if the verb rather formed an *’ay*-subjunctive. Since the forms adduced as *’ay*-subjunctive forms can all be explained as optatives, *al-* must have formed a root subjunctive. Consequently, *ālu* is morphologically ambiguous indeed, although it is probably a participle in IT11a1 (cf Malzahn forth.b).

(if passive, the participle may have a 1sg. agent, but this would probably be marked explicitly, i.e. '(the things) have been asked by me'). On the other hand, the Tocharian B *u-* and *au-* forms sometimes differed only in tense and aspect: *yāmu* 'I will do; I have done', so that the functional load of the reduplication syllable was much larger. In Tocharian A, the situation is even more delicate, since the *u-* forms both denote a past tense and the difference in aspect may have been very slight, so possibly *yāmu* 'I have done' (1sg. prt.), 'now I have done' (ptc.).

The description of the form of the preterite participle reduplication is for both languages more complicated than for the Tocharian A reduplicated preterite because there is more variation. In addition, a major point to address is when the reduplication is there and when it is not. Since the latter question goes beyond the synchronic description of reduplication, it is discussed under the formation of the preterite participle (see 2.9.2, p 149).⁴⁶

In Tocharian A, the reduplication vowel has two basic shapes: /a/ and /ā/. The surface root vocalism of the preterite participles is mostly *ä*,⁴⁷ but the heavy reduplication vowels *a* and *ā* can cause vowel weakening in the root. Consequently, the surface vowel *ä* need not be identical with the underlying root vocalism. Whether the reduplication vowel is *a* or *ā* can be predicted on the basis of the underlying root vowel.

If the underlying root vowel is *ā*, the reduplication vowel is *ā*, too, and other *ā* vowels are reduced to *ä*, except for roots with *y* and *w* diphthongs, where we find *e* and *o* in the root: *pāplu* {pā-pālā-w}, but *pāpeku* {pā-pāykā-w}. Sequences *āy* and *āw* are not affected by monophthongisation, e.g. *yāyru* {yā-yārā-w} or *wāwlu* {wā-wālā-w}. *e*-reduplication is found only in *wewñu* {we-weñ-w} of *weñ-* 'speak' (suppletive prs. *trānk-*). If the underlying root vocalism is *ä* or *a*, the reduplication vowel is *a*, e.g. *kaklyuṣu* {ka-klyawṣ-w}, *kakätwu* {ka-katw-w}, formed to roots that otherwise have *a*-vocalism throughout. Of many other roots, it is difficult to see what the underlying root vocalism is, since they have other stems with *ä*-grade beside it. Because of the close relationship between preterite and preterite participle, however, it is very likely that next to non-grading preterites like *pakāt* and *nakāt* the participle has *a*-grade in the root, e.g. *pakku* {pa-pak-w} (with *-kk-* from *-pk-*) and *nanku* {na-nak-w}. In some other cases, like *k^wām-* 'come', which has only *ä*-grade in all stems, it is more probable that the participle has *ä*-grade, too: *kakmu* {ka-k^wām-w}. There are some participles with an onset *wo-* and one with *ye-*, but their root vocalism is not entirely clear; the easiest is to assume that they reflect underlying *ä* or *a*. The hapax legomenon *yaiwu* A320a3 'entered' to the *s*-prt. *yowäs* is difficult to analyse: I would rather have expected ***yewu*.

⁴⁶ On the formation of the preterite participle, cf in general Peyrot (forth.a).

⁴⁷ Except for some roots with *ā*-reduplication and a root vowel *e* or *o*, and some roots starting in a vowel or one of the glides *y* and *w*.

The reduplication initial is identical to the root initial if it is a single consonant (including *ly* /*l̥*/); otherwise it is always the first consonant that is reduplicated. We find: *k* for *kr*, *kl*, *kly*; *c* for *cp*, *cr*; *t* for *tr*, *tw*; *p* for *pr*, *py* (cf above), *pl*; *m* for *mr*; *ś* for *śp*; *ṣ* for *ṣt*,⁴⁸ *ṣp*; *s* for *sn*, *sp*, *sr*.

The description of the reduplication vowel in Tocharian B is relatively easy: it is *a* before *a* (including *ai* and *au* standing for {*ay*} and {*aw*}), *o* before *o*, *e* before *e* (including *au* standing for {*ew*}) and *e* before *ə* (including /*əy*/ and /*əw*/, of course). The rules behind the distribution of especially the root vowels *e* and *ə* belong to the description of the preterite participle proper.

Just like in Tocharian A, the reduplication initial in Tocharian B is identical to the root initial if it is a single consonant (including *ly* /*l̥*/). However, the rules for clusters are slightly more complicated. If the second consonant is a resonant, it is the first that is reduplicated: *k* for *kr*, *kl*, *kly*; *t* for *tr*, *tw*; *p* for *py*, *pr*, *pl*, *ply*; *m* for *mr*; *w* for *wl*. If the second consonant is a stop, that is, effectively only when the first consonant is *ś*, *ṣ* or *s*, the whole cluster is reduplicated in case of *st* and its palatalised pendant *śc*, but the second consonant is reduplicated in case of *śp* and *sp* (i.e. *p*), and possibly *sk* (i.e. *k*). A complication is found with the initial *w-*, since it is lost before the reduplication vowel *e* in the context *wewə*: *ausu* {*we-wəs-(ə)w*}, *aultsu* {*we-wəłts-(ə)w*}, *auṣu* {*we-wəṣ-(ə)w*}. It is preserved in *wewināṣṣu* and *weweñu*, and in all forms with *a*-reduplication, e.g. *wawlāwau*.

2.5.7 ACCENT⁴⁹

Accent is only detectable in Tocharian B, where it plays an important role in the morphological distinctions in the verb. There may have been accent movements in Tocharian A as well, but the accent can only be inferred in an indirect way and it is impossible to tell whether there were minimal pairs. A pair such as 2sg.sbj. *krasat* ‘you will know’ and 3sg.prt.mid. *kārsāt* ‘it was known’ certainly reflects a difference in accent at a certain stage, i.e. /*krásat*/ from **krásāt* vs /*kārsāt*/ from **krāsāt*, but it is possible that the accent was moved forward or backward after vowel weakening had become phonemic. It is even possible that there were tonal distinctions, for instance in a word like *tāṣ*, which has three different meanings: 3sg.prs. ‘(s)he puts’ for {*tāṣä-ṣ*}; 3sg.sbj. ‘(s)he will be’ of the shortened variant of the subjunctive stem {*tāka-*}; the obl.f.sg. proximal demonstrative pronoun, apparently *tā-ṣ*. However, even if there were accentual or tonal differences, there is no way to establish them from the script, so that this must all remain conjecture.

In Tocharian B, the accent is detectable from the spelling of the vowels /*ə*/ and /*a*/ (not before /*y*, *w*/): unaccented /*ə*/ and /*a*/ are spelled <*ä*> and <*a*>, and accented they are spelled <*a*> and <*ā*>, respectively. Several difficulties may arise, as a word

⁴⁸ If *ṣāṣtru* MY2.8b3 reflects {*ṣā-ṣtār(ā)-w*}.

⁴⁹ Cf in general Marggraf (1970).

may have no *a*- or *ə*-vowels, or the relevant syllables do not have them; sometimes the quality of the vowels is not known, so that e.g. <a> could be either accented /ə/ or unaccented /a/; in a certain group of manuscripts, namely archaic texts, the accent is not expressed (cf Peyrot 2008a: 33–41). However, archaic texts have the advantage that they mostly give unambiguous evidence as to the quality of the vowels /ə/ and /a/, so that archaic spellings can be helpful in combination with classical spellings.

A serious complication with the accent is that it has two manifestations: a phonological surface form and an underlying morphological form. This difference is caused by an accent retraction by one syllable from final syllables ending in a vowel or simple *n*. Thus, it appears that all preterite forms of ‘be’ have suffix accent, e.g. the morphological stem is {taká-}; this accent is seen in e.g. 1sg. *takāwa* {taká-wa}, 2sg. *takāsta* {taká-sta} or 3sg.suff. *takā-ñ* ‘it was to me’ or ‘I had’ {taká-ñə}. However, in the 3sg. the accent is retracted: *tāka* ‘(s)he was’ is phonologically /tāka/ but morphologically {taká-Ø}. The combination of the limited detectability of the phonological accent and the difference between the phonological and the morphological accent may make it difficult to establish the morphological accent of certain forms. In general, however, the accent has only a limited number of patterns and often it seems justified, therefore, to deduce the accent for forms that do not exhibit it themselves.

Although stem-internal accent movements exist, these are restricted to the phonological level (Marggraf 1970: 17). All morphological accent movements distinguish different stems of one verb, or a causative stem from a non-causative one.

When different stems of one verb are distinguished by the place of the morphological accent, it is always the subjunctive that goes together with the imperative in having root (initial) accent, whereas the preterite has suffix (medial) accent; the present stem is never distinguished by a difference in accent. The clearest accent pattern is found with *x|a*-root subjunctives and preterites and with some subjunctives and preterites with an *a*-suffix. A typical pair of stems distinguished by a difference in accent is sbj. {tāka-} of *taka-* (prs. *nes-*) ‘be’ vs prt. {taká-}. In most cases, the endings of the subjunctive and the imperative are different from those of the preterite, but in these classes, the 1pl.sbj. and 1pl.prt. are never distinguished by anything other than the accent: 1pl.sbj. *tākam* ‘we will be’ {tāka-mə} vs 1pl.prt. *takām* ‘we were’ {taká-mə}. Certainly less frequent were pairs like 2sg.sbj. *kautat* ‘you will chop’ {káwta-tə} vs 2pl.prt.mid. *kautāt** {kawtá-tə} ‘you chopped for yourself’⁵⁰ – often the 2sg.sbj. would have had *a*-grade vs *ə*-grade in the preterite: 2sg.sbj. *kālat* {kála-tə} vs 2pl.prt.mid. *klāt** {kálá-tə}.

Since the 3sg.prs. ending {n} is sometimes not written before e.g. the 1sg. pronoun suffix {ñə}, the difference may have disappeared in speech, too, so that *takā-ñ* {taká-ñə} ‘I had’ differed only in accent from *tāka-ñ* {tākan-ñə} ‘I will have’. In im-

⁵⁰ Obviously, these pairs were rare because the verb had to have a contrastive middle, and because the 2pl. was rare in general.

peratives to verbs with initial *p*-, or late forms that have lost the imperative prefix (cf Peyrot 2008a: 62), some additional minimal pairs must have been there: e.g. sg.ipv. suff. *tāka-ñ** ‘be for me’ {(p)-tāka-ñə} vs 3sg.prt.suff. *takā-ñ* ‘I had’ {takā-ñə}; pl.ipv. *karsas** ‘know’ {(p)-kərsa-sə} vs 2pl.prt. *kärsās** ‘you have known’ {kərsá-sə} pl.ipv. mid. *kraupat** ‘gather’ {(p)-kráwpa-tə} vs 2pl.prt.mid. *kraupāt** ‘you have gathered’ {krawpá-tə}. With the late 3pl.prt. ending *-r* for classical *-re* we could in addition expect a pair like sg.ipv.mid. suff. *kautar-ne** ‘chop it/ him for yourself’ {(p)-káwta-r-ne} vs 3pl.prt. suff. *kautār-ne** ‘they have chopped it/ him’ {kawtá-r-ne}. As will be immediately clear from the many deduced and typically infrequent forms (such as the 2pl.) among the above minimal pairs, accent only rarely distinguishes different stems by itself.

Not all *a*-subjunctives and *x|a*-root subjunctives have initial accent. There seems to be a simple rule: if the root has stable *a*, the subjunctive has suffix accent; if the subjunctive has *a*-grade or *a* : *ə* gradation, it has root accent. There is a considerable group of verbs with *a*-vocalism in the root for which this distribution cannot be proved independently, but where possible *a*-grade forms are not attested; on the basis of the accent, they can be assumed to have had the same pattern. Of yet another group of verbs the morphological accent of the subjunctive stem cannot be established with the attested forms. The following subjunctives show a deviating pattern:

- kəsk*- ‘scatter’, sbj. {k^a/ská-}: the final accent is shown by 3sg.mid. *käskäträ* and sbj.ger. *käskällänñe*; the *a*-grade form is 2sg. *käskat*;
- təma*- ‘grow’: a sbj. stem {təmə-} fits all subjunctive stem forms, e.g. 3pl.mid. *tsmāntār*, inf. *tsmātsi* and vn *tsmālñe*, except the isolated 2sg. *tsāmat*. Since the latter form is very uncertain, perhaps no *a*-grade forms are attested at all;
- nəwa*- ‘roar’, sbj. {nəwa-}: the initial accent is shown by vn *nūwalñe* (2x) and *nuwalñe* (2x), whereas *nwalñe* (2x) is an “accentless” verse form. The problem with this verb centres on an apparent 3sg. *nuwam* AS7Ma4, but since the syntax is difficult, it might perhaps be a 3pl., in which case the 3sg. could still have been *nauwam** with full grade;
- təka*- ‘bite’, sbj. {təká-}: the stem is not well attested, but its ger. *tsakäll*· IT363b2 and *tsakälla* THT1158a3 seem to point to *a*-grade combined with suffix accent.

The following two verbs are well attested as middle only verbs, so that it is not very likely that their initial accent can be explained by gradation, since these subjunctives were probably never grading: {rəyta-} of *rəyta*- ‘seek’ and {wərpə-} of *wərpə*- ‘enjoy’. Nevertheless, these verbs might in some way have belonged to the same general pattern, even with the crucial forms lacking – perhaps the actual reason for the distribution is something that we can detect only indirectly through the attestation of *a*-grade.

Thus, the initial accent of the subjunctive and the imperative distinguishes them from the preterite stem, which is otherwise often identical. Generally, it does *not* distinguish certain subjunctive types from others.

A very similar accent pattern is found in the *s*-preterite and the *x|Ø*-root subjunctive. In the preterite, the accent is normally mobile. Since this mobility always follows one pattern, it is not contrastive: it seems that one underlying accent can account for all accent movements, and in some forms the accent moves away from its original locus. This underlying accent seat is the *ə* that follows the root, i.e. 1sg. *prekuwa* {prek-ə-wa}, 2sg. *prekasta* {prek-ə-sta}, 3pl. *prekar* {prek-ə-r}. In the 3sg., the *ə* is syncopated and the accent is retracted by a specific morphophonological rule that is seemingly independent from the retraction from final syllables: *preksa* {prek-ə-sa-Ø} > /préksa/. In one form, the medial accent is preserved: *yonmasa* {yonm-ə-sa-Ø}. The regular retraction in the 3sg. is not “undone” by a suffixed pronoun: *preksa-ne* ‘(s)he asked him/ her’ {prek-ə-sa-Ø-ne} /préksane/. In the middle paradigm, all forms have the suffix *sa*, but the accent is always on the root, e.g. 1sg. *temtsamai* {tem-ə-sa-may} /témt^samay/, 3sg. *temtsate* {tem-ə-sa-te} /témt^sate/, 3pl. *temtsante* {tem-ə-sa-nte} /témt^sante/.⁵¹

Thus, the *s*-preterite has underlying suffix accent. The corresponding subjunctives and imperatives, however, always have consistent root accent. We find stem accent contrasts like sbj.sg. {prék-} vs prt. {prek-ə-} of ‘ask’ or sbj.sg. {yóp-} vs prt. {yop-ə-} of ‘enter’ etc. Since in grading subjunctives the plural has *ə*-grade, we do not find minimal pairs for e.g. the 1pl.: this would probably be sbj. *parkām** {prák-ə-mə} vs prt. *prekam** {prek-ə-mə} with a difference in root grade. The only category where minimal pairs must have occurred, are the non-grading *a|Ø*-roots, i.e. 1pl.sbj. *kāwām** {kāw-ə-mə} vs 1pl.prt. *kawam* {kaw-ə-mə} of ‘kill’ or 1pl.sbj. *plākām** {plāk-ə-mə} vs 1pl.prt. *plakam** {plak-ə-mə} of ‘agree’.

The remaining accent patterns all concern the causative. In the causative, the accent does not distinguish stems from each other; rather, it may distinguish a causative stem from the corresponding stem of a non-causative verb. Apart from the preterite participle, all stems show initial accent.

The ^{ssə}/_{ske}-present-subjunctive of the causative has root (initial) accent, whereas other ^{ssə}/_{ske}-presents or present-subjunctives have medial accent. Sometimes this leads to minimal pairs, as in 3sg.mid. *tänmasträ* /tənməstrə/ ‘(s)he is born’ from prs. {tənmə^{ssə}/_{ske}-} vs 3sg.mid. *tanmästä(r)* /tənməstər/ ‘(s)he produces’ from prs. {tənmə^{ssə}/_{ske}-}. It is very difficult to find more of such precise minimal pairs, but we can deduce some of them at least: 3sg.mid. *aklastär** /aklástər/ ‘(s)he learns’ vs 3sg.mid. *āklästär* /āklástər/ ‘(s)he teaches’; 3sg.mid. *aunasträ* /awnəstrə/ ‘(s)he begins’ vs 3sg.mid. *aunästrä** /awnəstrə/ ‘(s)he lets begin’. In many other cases, there is not only a difference in accent, but a difference in vocalism, too, cf 3sg. *kälpāššām*

⁵¹ A different diachronic account is offered in 4.5.5 (p 413).

{kəlpá^{ssə}/ske-} ‘(s)he obtains’ with medial /a/ vs 3sg. *kalpāṣṣām* {kəlpə^{ssə}/ske-} ‘(s)he lets obtain’ with medial /ə/.

Although the causative preterites also have a marked initial accent, this never yields minimal pairs. There are two types: a “strong” type and a “weak” type. In the strong type, the root vowel is *a*, but this type is only formed with gradable roots, so that normally the corresponding non-causative preterite not only has a different accent, but also a different root grade, i.e. 3sg.suff. *śārsā-ñ* ‘(s)he has known me’ {śārsá-ñə} vs 3sg.suff. *śārsa-me* ‘(s)he has let them know’ {śārsa-me}. The only gradable root that has *a*-grade in the non-causative preterite and for which a causative is attested beside it, *laka-* ‘see’, prt. {láká-}, forms a weak causative preterite {lákəṣṣa-}, so that no strong causative preterite is distinguished by the accent alone. The weak type is formed to non-gradable roots from the present-subjunctive stem. Because this pattern is very rare in non-causative verbs – actually only found in *yam-* ‘do’, prt. {yaməṣṣa-} – it does not yield minimal pairs either: the initial accent is marked, but there are no corresponding forms with medial accent (a causative of *yam-*, where one could expect a prt. {yáməṣṣa-}, is not attested).

On the evidence of pl.ipv. *pāñarkas* {p(ə)-ñárka-sə}, the imperative to the strong causative preterite also has initial accent, but since the corresponding non-causative imperatives as a rule have initial accent as well, the accent is never distinctive here. In some verbs it seems that the difference with the non-causative imperative is rather initial palatalisation, although exact minimal pairs are lacking: pl.ipv. *pkalas* ‘bring’ {p-kála-sə} vs pl.ipv. *pśalas** ‘let bring’ {p-śála-sə} (attested is possibly a *śālāt*, difficult to analyse because of the deviant vocalism). The imperative of non-causative ‘stand’ is not attested, whereas the verb as such is well known, which may point to a systematic gap, probably because of pragmatics. Otherwise, we would have a similar contrast there: pl.ipv. *pāstamas** ‘stand’ {p(ə)-stáma-sə} vs pl.ipv. *pāscamas** {p(ə)-ścáma-sə} ‘let stand’. The imperative to the weak causative preterite has initial accent as well, but it has no non-causative counterpart, so that there are no minimal pairs.

To sum up, accent that distinguishes between verbs is only found between non-causatives and causatives. The causative accent is clearly marked vis-à-vis the non-causative accent, but minimal pairs are only found in the present, and even there the number is relatively small.

2.5.8 GEMINATION⁵²

In both Tocharian languages, a small number of verbs show alternations of simple and double consonants. Three types can be distinguished:

- 1) double *rr* or *ll*, probably going back to combinations of *r* and *l* with *n*, i.e. *rn* and *ln*, respectively (in some cases an additional consonant is lost before the *n*);
- 2) double *tt* in the *nik*-variant of nasal infix verbs in Tocharian B;
- 3) double stops reduplicated preterite participles.

Of these three types, 2) and 3) are certainly not morphologically distinctive, but 1) might be distinctive in Tocharian B.

In both languages, we sometimes find the geminates *rr* and *ll* where we expect to find *rn* and *ln*. It seems that the instances in Tocharian A can be analysed as variants of *nā*-presents, since the verb patterns are not different from normal *nā*-presents: gemination can be analysed as a morphophonological rule. However, in Tocharian B some verbs with *rr* and *ll*, which go back to *na*-presents as well, differ from normal *na*-presents in their formation patterns. Thus, apparently the geminates did not function as automatic variants of *rn* and *ln* any longer.

In Tocharian A only three verbs with gemination are attested, all with *ll*:⁵³

kālā- ‘bring’: this seems to be a regular *nā*-prs. {*kālnā*- → *källā*-} with a grading sbj. {*k^a/ālā*-};

pālā- ‘praise’: the prs. {*pällā*-} is distinguished from e.g. the sbj. {*pāla*-} both by the geminate *ll* and the root vocalism *ā*;

wāl- ‘die’: the prs. {*wällä^{sā}/sa*-} has a geminate *ll* vs single *l* in the *a*-sbj. {*wāla*-}; the stem pattern fits other *a*-subjunctives that form *nä^{sä}/sa*-presents, so that we can analyse {*wällä^{sā}/sa*-} as {*wāl-nä^{sā}/sa*-}.

⁵² This section is about the position of geminates in verbal morphology only. Actually, there is some fluctuation between geminates and single consonants (predominantly stops) in both languages, and notably in Tocharian B. In most cases, the geminate seems to be original whereas single writings have to be explained, but the opposite is certainly also found. In my view, the spelling variation with double consonants and the phonology and phonetics behind it deserve a special investigation, especially for Tocharian B. In this section, I focus on “certain” geminates, i.e. geminates that are well attested (if not, I discuss the value of the attestations).

⁵³ The assumption of *rr* in inf. *yä(rn)āssi* or *yä(rr)āssi* A227/8a2 (Hackstein 1995: 318) is of course uncertain as apparently another form of the same verb shows *rn*: *sāt wäryo yärnā///* TH1154a3.

In Tocharian B we find:⁵⁴

- pəla-* ‘praise’: the present stem deviates from all others in having *ll*, {*pəllá-*}, but also in its root vocalism, cf sbj. {*pála-*};
- skəra-* ‘scold’: the present stem {*skərrá-*} (prs.ptc. *skərrāmane*) is distinguished by its double *rr* and the *ə*-vocalism in the root vs *a* in the other stems, e.g. sbj. {*skára-*} (inf. *skāratsi*);
- kəla-* ‘bring’: this verb resembles the standard pattern of nasal presents, with a grading sbj. {*ká/śla-*}, but the prs. is not only characterised by the doubling of the *l* (from *ln*), but also by a *ssə/ske-* suffix: {*kəllássə/ske-*};
- təla-* ‘lift’: the paradigm of this verb is only imperfectly known. Apparently the double *ll* is found in all stems, but it must have arisen through suffixation because the derived causative has only simple *l*. In this case, the geminate *ll* does not (co-)distinguish a particular stem, but the non-causative from the causative;
- məla-* ‘oppress’: if the prt.ptc. *m(a)mālo(ś)* B159b6 belongs here, the double *ll* co-distinguishes the prs. and the sbj. from the prt.; the prs. {*məllássə/ske-*} is marked with a *ssə/ske-* suffix vis-à-vis the sbj. {*malla-*} (probably {*mälla-*}) and the *ə*-vocalism in the root;
- təra-* ‘appease’ (?): the prs.ptc. *tərraskemane*, probably built from a prs. {*tərrassə/ske-*}, may reflect *rr* from *rn* – no further forms are attested so that other stems are unknown;
- kəlpə-* ‘obtain’: this verb deviates slightly because its geminate *ll* alternates with *lp*, so that it must go back to *lpn*, and because the geminate is found in the sbj. {*kəllá-*} only, whereas the prs. {*kəlpássə/ske-*} is formed from the root with a *ssə/ske-* suffix.

In my view, type 1) is not morphologically distinctive in Tocharian A because the verbs with gemination pattern in exactly the same way as *nā-* or *nāssā/sa-* presents, and accordingly, they can be analysed as special variants of these presents. In Tocharian B, the situation is different, as all verbs with gemination deviate in one way or other from standard patterns. I take these deviations to mean that the geminates were no longer felt to contain a morphological element *n*, so that restructurings were needed. Whether this means that gemination is morphological in Tocharian B is not an easy matter. Gemination was certainly never the only distinctive factor, precisely because the stems in question were recharacterised; however, it was not removed, but kept as a co-distinctive feature. In *kəla-* ‘bring’, the synchronic derivation of the geminate *ll* from *ln* even needs the assumption of an isolated present suffix {*na^{ssə}/ske-*}, so that *ll* is perhaps best analysed as a morphological irregularity.

Type 2) is fully concomitant with the category of *nik*-presents and as such it was never morphologically distinctive (see also 2.5.1, p 53).

⁵⁴ The existence of a present {*stallássə/ske-*}, which would also contain *ll* from *ln*, is doubted by Malzahn (forth.b).

Type 3) is again different. It is found in both languages, but the conditions are not fully clear. The consonants concerned are *k*, *c*, and *t* before resonants in Tocharian A and principally *c*, *ś*, *ṣ* and *tʰ* (not before resonants) in Tocharian B.

In Tocharian A we find reduplication in two categories: the reduplicated preterite and the reduplicated preterite participles. However, gemination of the root-initial consonant is found only with preterite participles and never in reduplicated preterites.⁵⁵ “Real” morphologically determined gemination is found with *kñ*, *tr*, *cr* and once with *k*:

kākkñāññu A218b4 to *knā*- ‘know’ with a prt. {*kñāññā*-}, attested only once; *caccrīku* A220b4 to *trāyk*-_{caus.} ‘confuse’

tattrānku to *trānk*- ‘hang’ with a prt. {*trānk*-_{Ø/sā}-}, attested three times with a geminate (A456a3, A226a2, A226a5) and two times without (A30b3, A254a2; the preterite is not attested);

tattripu A455a4 with geminate must be a variant of (*ta*)*triwu* A423b1 with simple *t* (the preterite is not attested).

The following preterite participles have geminates of a different origin:

paku- of *pāk*- ‘boil’ is well attested with geminate *kk* and once without: *paku* A154b2. The *kk* goes back to *pk*, as the expected morphological shape is {*pa-pāk*-w} or even {*pa-pak*-w}, where the /ä/ from {a} was syncopated;

kākku of *kāka*- ‘call’, suppletive to *ken*-, is well attested with geminate *kk* and once without: *kākurāṣ* A396b2. The *kk* is to be explained by regular syncope from {*kā-kākā*-w};

tāppu of *tāp*- ‘eat’, suppletive to *śāwā*-, owes its geminate to *ā*-syncope in {*tā-tāpā*-w} and so it goes back to *tp*.

The gemination in Tocharian A preterite participles is difficult to capture under one rule. A condition seems to be that the root initial cluster consists of an obstruent (or stop, if this includes /c/) and a resonant, but the few examples we have do not belong to one morphological category and there are many verbs with the same phonological environment that do not have it.

The situation in Tocharian B is different (cf in general Winter 1994a: 302-303). As a phonological pattern, we find that only single obstruents have geminate variants, i.e. *k*, *c*, *t*, *ś*, *ṣ*, *tʰ*. Another important difference is that gemination is clearly centred round the participles to causative preterites. Finally, there are much less variants than in Tocharian A: the gemination seems to be systematic.

⁵⁵ A geminate *śś* is found once in the reduplicated preterite {*śāśśām*(ā)-} of *štām*-_{caus.} ‘establish’, 3sg. *śāśśām* MY1.7b7 vs e.g. 3sg. *śāśām* A332a4, 2sg. *śāśmāst* A56a6. This geminate may reflect the length of the unpalatalised *št* instead of being morphological – cf also the ipv.sg. *pāśśām* A256a4.

In the participles to causative preterites we find:

- ceccalor* (abstr.) B81b5 to *təl*-^{caus.} ‘lift’ is attested only once, next to *ceclu* B204a4 with regular preconsonantal degemination; next to it, a causative preterite {*cála*-} is well attested;
- ceccuku* to *təwk*-^{caus.} ‘hide’ is attested several times, the preterite being the causative type {*cáwka*-};
- śeśśarsoş* IT307a6 to *kərs*-^{caus.} ‘let know’ is attested only once; the causative preterite {*śarsa*-} is well attested;
- ś(e)śśuko(ş)* B82a1, of which the meaning is hard to establish independently (Adams 1999: 180 suggests ‘bow down’), fits morphologically well to the *vn* *kukäşälyñe* ‘depression’, which probably combined with a causative preterite {*śáwka*-};
- şeşşirku* to *şark*- ‘surpass’ is well attested, and it is found next to a causative preterite {*şarsa*-};
- tsetstsarormem* (abs.) B181a3 to *tʰər*-^{caus.} ‘separate’ is attested only once, but the causative preterite {*tʰyára*-} is well attested.

Good alternative explanations are available for the following items:

- kakkāccuwa* of *katk*- ‘be glad’ occurs two times in a late text (B107a10, B107b6), whereas forms with a single *k* are well attested elsewhere, so that the *kk* must be a late feature;
- śeśśamu* to *stəm*-^{caus.} ‘put, establish’ and comparable forms are attested several times, but here the geminate is certainly due to simplification of the cluster *śc* (Peyrot 2008a: 70–71), itself also well attested, e.g. *śceścmor* B211b3;
- śeśśanmu* B5b1, B18b8, B295a4 to *śanm*- ‘bind’ owes its *śś* to older *śc* as well, cf *śceśă(n)moş* TH1350a3.

The following two forms are from poorly attested verbs and they could form an *s*-preterite:

- tettinor* B522a5, abstract of *təyn*- ‘be dirty’ or ‘defile oneself’ (Malzahn forth.b). The abstract points to a participle *tettinu*, -oş, but the preterite is difficult to deduce from the few other forms attested of this verb – an *s*-preterite is a possibility in view of the non-palatalised *t_tt*;
- kekkärkū* B142b3 to *kärk*- ‘bind’ is attested only once, the preterite probably being an *s*-preterite {*kärk-sa*-}.

The following instances are difficult to categorise:

- kakkārpäşşormem* (abs.) B374frg.a to *karp*-^{caus.} ‘let descend’ is attested only once in a fragmentary manuscript, the corresponding preterite being {*kārpəşša*-};

tättā_u to *tās-* ‘put’ is attested several times in slightly different spellings, but always with a geminate *tt*. It is a different case because the reduplication and the *tt* are also found in the subjunctive stem {*tätta-*}; *tättā_u* certainly does not fit the regular pattern of geminates sketched above;

sassāmpaṣ to *samp-* ‘take away’ is attested twice (AS7Ka4, Cp37.44), both times with a geminate, although *samp-* does not fit the morphological pattern of the other geminates sketched above.

The rule that preterite participles to causative preterites with simple obstruent onsets have gemination has no counterexamples: all other candidates have either initial clusters or resonant initials. Gemination is in this category never distinctive, however, as there are no minimal pairs and these participles are always sufficiently characterised by other features: *e*-reduplication, *a*-root vocalism, initial palatalisation and their inflexion type (*-u*, *-oṣ*, class 2).

2.6 STEM DERIVATION IN TOCHARIAN A

The analysis of the stem patterns of the Tocharian verb presented in sections 2.6-2.9 is traditional in the sense that it is principally based on only one morphological distinction: suffixing. It deviates from the traditional approach in that it strongly emphasises the derivational relations between stems instead of deriving all stems from the root of the verb. This analysis has great advantages, since it considerably reduces the number of classes and accounts for the patterns of these classes at the same time. However, there are also drawbacks, which centre round two issues: stems that have to be derived from the root, and stems that are identical. A less essential, but nevertheless important problem is posed by root-final *a*, which may “give way” to other suffixes.

The idea that many stems are derived from other stems and not from the root allows to reduce suffixes to smaller units, which in turn reduces the number of suffixes. Logically, not all stems can be derived from other stems: one underived stem must be the basis for the derivation of the other stems. This underived stem will be called the “primary stem” and derived stems “secondary stems”. The problem is that in some cases it is impossible to assign a primary stem because no stem is found at the basis of all others at the same time. In such cases, one is forced to derive at least two stems from the root.⁵⁶

When stems are identical, the main principle of the analysis can still be pursued: we can say that one of the two stems is derived from the other by means of a zero suffix. The problem with this solution is that it requires a criterion to assign a primary stem and a zero-derived stem. The criterion I have used attaches a function to formation suffixes: a suffix is defined by its stem distinguishing function. For

⁵⁶ If only one stem were to be derived from the root, it would be the primary stem, of course.

instance, a suffix that distinguishes present stems from other stems is a present suffix. In different verbs, one suffix may distinguish different stems, so that e.g. a suffix with present function may also distinguish subjunctives from preterites, in which case it has both present and subjunctive function. However, if in one verb present and subjunctive are identical, this does not mean that the suffix found there has both functions: if the suffix is found with present function elsewhere, it is the present stem that is primary and the subjunctive is derived. If present and subjunctive are identical and the suffix is attested in both functions elsewhere, I will assign the primary status to the stem that is most frequently attested as primary.

Zero derivation is found between present and subjunctive stems, between present and preterite stems, but, most of all, between subjunctive and preterite stems. The most important zero derivation category is made up by root subjunctives and root preterites to $x|\bar{a}$ -roots. Since in general preterites are only rarely derived from subjunctives in Tocharian A, but subjunctives frequently from preterites, the identical subjunctives and preterites are analysed as primary preterites and zero-derived subjunctives.

2.6.1 OVERVIEW

For convenience, the stem patterns are presented schematically below. The following symbols have been used:

- also “↗” and “↘”, derivation with a suffix;
- ⇒ also “↗” and “↘”, derivation without suffix or zero derivation;
- √ root.

The inclined arrows (“↗”, “↘” etc) are used to indicate that more than one stem is derived from a particular base (a stem or the root). For example, the following information is to be read as: “from an *s*-preterite a $\bar{s}\bar{a}/sa$ -present is derived, as well as a zero-derived $x|\bar{\emptyset}$ -root subjunctive or an $\bar{a}/a$ -subjunctive”.

<i>s</i> -PRT 3	↗	$\bar{s}\bar{a}/sa$ -PRS	8
	↘	$x \bar{\emptyset}$ -√-SBJ	1
	↘	$\bar{a}/a$ -SBJ	2

The scheme is further to be read as follows. Underived bases – mostly stems, sometimes the root – are found in the first column; all stems in the second column are derived from the bases in the first column; all stems in the third column are derived from the stems in the second column. The classes of the *Elementarbuch* (Krause and Thomas 1960) are given under “TEB”.

<i>primary preterites</i>	TEB		TEB		
s-PRT	3	↗ ṣä/sa-PRS	8		
		↘ x Ø-√-SBJ	1		
		↘ 'ä/a-SBJ	2		
		↘ ñä/a-SBJ	7		

(without sâ)	3	↗ nṣä/sa-PRS	10		
		↘ a-SBJ	3		

		↗ a-PRS	3		
		↗ a ā-√-PRS	4		
		↗ nā-PRS	6		
x ā-√-PRT	1	↗ ⟨n⟩-PRS	7		
		↘ x ā-√-SBJ	5		
<i>primary presents</i>	TEB		TEB	TEB	
x Ø-√-PRS	1	→ ā-√-PRT	1	⇒ ā-√-SBJ	5
-----				-----	
ä ā-√-PRS	5	→ ā ā-√-PRT	1	⇒ ā ā-√-SBJ	5
<i>primary subjunctives</i>	TEB		TEB	TEB	
'ä/a-SBJ	2	⇒ 'ä/a-PRS	2	→ ā-PRT	1
<i>no primary stem</i>			TEB	TEB	
root		↗ äyṣä/sa-PRS	11		
		↘ ññä/a-SBJ	12	→ ā-PRT	5

		↗ 'ä/a-PRS	2		
root		↗ ṣä/sa-PRS	8		
		↘ ā-PRT	1	⇒ ā-SBJ	5

2.6.2 PRIMARY PRETERITES

The preterite stem has a central position in Tocharian A: the vast majority of the preterites is primary. There are three main types of primary preterites: $x|\ddot{a}$ -root preterites, *s*-preterites, and reduplicated preterites. The different subtypes will be discussed under the subjunctive and present types that are derived from them; discussing primary preterites as a separate category is not very useful exactly because virtually all verbs have them.

2.6.3 DERIVED PRETERITES

There are not many derived preterites in Tocharian A and they are all formed with the $\ddot{a}$ -suffix. Mostly, the $\ddot{a}$ -suffix causes palatalisation when possible, but in some cases it does not, so that we have to assume two different suffixes: $\{\text{'}\ddot{a}\}$ and $\{\ddot{a}\}$. These suffixes form both derived preterites and imperfects. As it turns out, distinctive imperfects are exclusively formed with the suffix $\{\text{'}\ddot{a}\}$ and distinctive preterites only

with the suffix {ā}, if the *ä*-variant of *ä*/*a*-presents or subjunctives is taken as the basis for the derivation.

The following preterites are derived from the present stem with the suffix {ā}. These preterites are regular in the sense that the unsuffixed 3sg.act. loses the *ā*, e.g. 3sg. *pālk*.

PRETERITE		PRESENT	
{pālkā-}	←	{pālk-}	‘shine, look’
{pāykā-}		{pāyk-}	‘paint, write’
{lāykā-}*		{lāyk-}	‘wash’
{sālpā-}*		{sālp-}	‘glow’

The preterites {lāykā-} and {sālpā-} are inferred from the respective subjunctives of exactly the same form. In {pāykā-} and {lāykā-}, the derivation goes together with a full grade *ā* (witness the preterite participles *pāpeku* and *lāleku*, cf 2.5.6, p 81, and 2.9.1, p 146).

A difficult category is formed by the following preterites that are derived from the subjunctive stem. Since they do not lose the final *ā* in the unsuffixed 3sg.act., they look more like imperfects. However, they are certainly preterites because the present stems are all different.

PRETERITE		SUBJUNCTIVE		PRESENT	
{ākṣāññā-}	←	{ākṣāññā/ <i>a</i> -}	≠	{ākṣāy ^{sā} / <i>sa</i> -}	‘announce’
{okṣāññā-}		{okṣāññā/ <i>a</i> -}		{okṣāy ^{sā} / <i>sa</i> -}	‘grow’
{weñā-}		{weñā/ <i>a</i> -}		{trānkā-}	‘say’
{klōṣā-}		{klō ^{sā} / <i>sa</i> -}		{klōsnā ^{sā} / <i>sa</i> -}	‘hear’

The first two verbs clearly follow the same pattern, but the last two are exceptional: {weñā-} is different because it is part of a suppletive system, and its unsuffixed 3sg. not only deviates in dropping the final *ā* (as a regular preterite), but also the final nasal, which is unparalleled: *we* (on historical grounds, we would expect **wem*, comparable to the imperative *peṃ* etc). {klōṣā-} is completely parallel to a group of verbs with zero presents, except for two things: it has a secondary present {klōsnā^{sā}/*sa*-} beside {klō^{sā}/*sa*-} in relic forms such as the inf. *klyossi*, and its preterite {klōṣā-} behaves like an imperfect in keeping the final *ā* in the unsuffixed 3sg., except for *klyoṣ* A436b4, which forces us to set up an imperfect-like {klōṣā-} with stable *ā* next to a regular preterite {klōṣā-} with *ā* dropping in the unsuffixed 3sg.

Four preterites look like they have to be derived directly from the root because the stem final before the *ā*-suffix is not palatalised or the present cannot be the basis for another reason. In the case of {ent^{sā}-}, we have to assume that it is derived from the root because the present has an additional *sā*/*sa*-suffix. The preterite stem {mewā-} is not totally certain, since it is inferred from the vn *mewlune*; in any case, its *w* excludes derivation from the present stem:

PRETERITE	ROOT	PRESENT
{entsā-}	← <i>ent^s-</i>	≠ {ent ^s ä ^{sä} /sa-} ‘seize’
{p ^a /änwā-}	<i>pänw-</i>	{pañw ^ä /a-} ‘pull’
{mewā-}	<i>mew-</i>	{me-} ‘tremble’
{wäsā-}	<i>wäs-</i>	{wa ^{sä} /sa-} ‘dress’

In two verbs, a different suffix is found: {sä}.

PRETERITE	PRESENT
{twäsā-}	: {täw ^{sä} /sa-} ‘light’
{swäsā-}	{säw-} ‘rain’

(The preterite {twäsā-} is inferred from the subjunctive of the same form.) With two verbs only, it is impossible to find a pattern; even these two verbs do not have exactly the same formation.

2.6.4 ZERO PRETERITES

Preterites that are identical to subjunctives are very frequent in Tocharian A, but these are classified as primary preterites with zero subjunctives. Nevertheless, there are some preterites that can be called zero preterites. These concern a small group of verbs with present-subjunctive where no distinction can be made between imperfect and preterite:

IMPERFECT-PRETERITE	PRESENT-SUBJUNCTIVE
{kāṣāññā-}	← {kāṣāññ ^ä /a-} ‘scold’
{täwnkāññā-}	{täwnkāññ ^ä /a-} ‘love’
{pāṣā-}	{pā ^{sä} /sa-} ‘protect’
{yārṣā-}	{yār ^{sä} /sa-} ‘revere’
{wlāyṣā-}	{wlāy ^{sä} /sa-} ⁵⁷ ‘carry out’
{säwā-}	{säw ^ä /a-} ‘live’

These imperfect-preterites behave more like imperfects than preterites in that they do not drop the root-final *ä* in the unsuffixed 3sg.act. Consequently, they would be derived from the present rather than the subjunctive; however, as noted above, there are also unambiguous preterites derived from subjunctives that show exactly the same “imperfect” characteristics. That {krāṣāññ^ä/a-} ‘be annoyed’ and {slānkāññ^ä/a-} ‘?’ are present-subjunctives as well is inferred from their similarity to the pattern of ‘scold’ and ‘love’; probably they formed the same type of imperfect-preterite.

⁵⁷ The vocalism *äy* instead of *e* is needed for the preterite participle *wāwleṣu*.

{kłosā-}, ipf.-prt. of ‘hear’ is completely parallel to ‘protect’, ‘revere’ etc, except for its secondary present {kłosnäsä/sa-} and one “real” preterite form *klyos*.

2.6.5 PRIMARY SUBJUNCTIVES

In the strictest sense, there is only one primary subjunctive in Tocharian A: {āy-}. The subjunctive of āy- ‘give’ is the shortest stem of this root and there is no other stem competing for the predicate “shortest” or primary stem: the present is {āyäsä/sa-} and the preterite is suppletive, {wä-sā-} (see 2.5.5, p 78). It may be no coincidence that this verb has an isolated suppletion type wherein subjunctive and preterite stem are from different roots.

The vast majority of the subjunctive stems are identical to the preterite and they could theoretically be primary subjunctives with zero-derived preterites. The reason to take the preterites as primary formations and the subjunctives as zero-derived is that derived subjunctives are common-place in Tocharian A, but derived preterites are rare.

2.6.6 DERIVED SUBJUNCTIVES

Derived subjunctives are primarily formed from the preterite. We find the suffixes {’ä/a}, {a}, {ñ}, {äsä/sa}, and marginally {nā} and {nāk}. In addition, there are two ññä/a-subjunctives that are formed from the root.

{’ä/a}

Derived ’ä/a-subjunctives form a limited, closed, heterogeneous category with a striking number of verbs with irregularities. As far as they follow a pattern, they are derived from *s*-preterites; however, not all have an *s*-preterite, or lack a preterite altogether. Therefore, the present stems are cited as well:

SUBJUNCTIVE		PRETERITE		PRESENT	
{kāwä/a-}	←	{kāw- <i>Ø</i> /sä-}	cf	{kāwäsä/sa-}	‘kill’
{träyäsä/ka-}		{träyk- <i>Ø</i> /sä-?}		{träykasä/sa-}	‘err’
{päläsä/ka-}		—		—	‘torment’
{yāmä/a-}		{yām-, yām- <i>Ø</i> /sä-}		{y ^{pa} /a-}	‘do’
{läñcä/a-}		{läcä-}		{läntäsä/sa-}	‘go out’
{sāmä/a-}		—		{k ^w ämnäsä/sa-}	‘come’
{tsäräsä/ka-}		—		—	‘torment’

A relatively coherent group is formed by {träyäsä/ka-}, {päläsä/ka-} and {tsäräsä/ka-}, also because the subjunctive suffix is very clearly evidenced by the verbal nouns *triślune*, *pläślune* and *tsärślune*. The problem with these three verbs is that they are defective: of the subjunctive, *only* the verbal noun is attested, whereas other stems are lacking completely for {päläsä/ka-} and {tsäräsä/ka-}. For {träyäsä/ka-}, the evidence is weak at least,

since the *s*-preterite is based on one archaic form 1sg. *trikū*, and the present could morphologically also belong to the causative. In short, these three verbs certainly are not part of a productive pattern anymore.

For all the other verbs, assigning the subjunctive suffix is less easy because they do not show stem-final palatalisation and the 1sg. and 3pl. forms are not completely trustworthy evidence. Nonetheless, the subjunctive suffix can be assigned with reasonable confidence. The most straightforward case seems to be {*kāw^ä/a-*}; the remaining verbs all have something irregular. {*yām^ä/a-*} corresponds to an *s*-preterite indeed, but the present is suppletive and the preterite has variants: both normal *s*-preterite forms and *sā*-less preterite forms are found; {*lāñc^ä/a-*} corresponds to a *sā/**sa*-present, but not to an *s*-preterite, and it has an additional *n* in the root; {*šām^ä/a-*} corresponds to a *nā^{sā}/sa*-present whereas the preterite is lacking (the prt.ptc. *kakmu* could – but need not – point to an *s*-preterite pattern).

{a}

Derived *a*-subjunctives form a coherent, but limited and probably closed category. Almost all combine with middle *sā*-less preterites, with *a*-grade in the root of the preterite middle.

SUBJUNCTIVE		PRETERITE		PRESENT	
{ <i>kāna-</i> }	←	–	cf	{ <i>kān^{sā}/sa-</i> }	‘come about’
{ <i>kāsa-</i> }		–		?	‘extinguish’
{ <i>cāma-</i> }		{ <i>tam-</i> }		{ <i>tām^{nā^{sā}}/sa-</i> }	‘be born’
{ <i>nāka-</i> }		{ <i>nak-</i> }		{ <i>nākn^{nā^{sā}}/sa-</i> }	‘perish’
{ <i>pāka-</i> }		{ <i>pak-</i> }		{ <i>pākn^{nā^{sā}}/sa-</i> }	‘boil, ripen’
{ <i>wāla-</i> }		{ <i>wāl-^o/sā-</i> }		{ <i>wāl(l)^{ä^{sā}}/sa-</i> }	‘die’
{ <i>t^sāka-</i> }		{ <i>t^sak-</i> }		{ <i>t^sākn^{nā^{sā}}/sa-</i> }	‘burn’

The subjunctives of this group of verbs are all middle only, except for a transitive active form 2sg. *nakāt*; {*cāma-*} deviates from the rest in having initial palatalisation. The presents are all of the same type, too, as we could analyse {*kān^{sā}/sa-*} morphologically as {*kān-nā^{sā}/sa-*} (on {*wāl(l)^{ä^{sā}}/sa-*} see 2.5.8, p 90). The preterites {*tamä-*}, {*nakä-*}, {*pakä-*} and {*t^sakä-*} follow the same pattern: they belong to a rare subtype of the *s*-preterite that has no *sā*-suffix in the middle. The only other verb that follows this pattern is *yāp-* / *yām-* ‘do’, which forms a second preterite middle stem with regular *sā* next to it.

The preterite to {*wāla-*} is different because it is active, so that it cannot be seen whether it would follow the *sā*-less pattern in the middle. However, it is probably not of the same type, since it does not have the characteristic *a*-grade in the root. Perhaps there is a relationship between the loss of the *n* in the present and the preterite type: to a prs. {*wāl^{sā}/sa-*}, a 3sg. *wlās* etc is one of the possible regular preterite formations. The preterites to {*kāna-*} and {*kāsa-*} are not known (the verb

käs- is only attested with a vn *ksalune* and the prt.ptc. *kaksu*: all alleged present forms are uncertain or definitely belong to other verbs).

The verb *mäsk-* ‘be, become’ could belong here, too. It is defective and overlaps in function with *nas-* ‘be’. It forms a present {*mäska-*} (witness prs.ptc. *mäskamāṃ* and inf. *mäskatsi*), an *s*-prt. {*mäsk-^Ø/sā-*} and prt.ptc. *mamäsku*. The problem with this pattern is that it is completely isolated: an *a*-present is normally paired with a *x|ā*-root subjunctive and *x|ā*-root preterite **{*mäskā-*} and accordingly, the prt.ptc. would have been ***mäsko*. Since ‘become’ often has the same future reference as the subjunctive, a subjunctive formation would not be surprising; however, other functions of the subjunctive, such as the conditional, are not attested for {*mäska-*}. If *mäska-* is actually a subjunctive stem, this would also explain why the verb has no “normal” subjunctive (in *-ā*), but the problem remains why it has no regular present {*mäsk-näsä/sa-*}, which we would expect on the basis of the other *a*-subjunctives.

{*ñä/a*}

All *ñä/a*-subjunctives combine with *s*-preterites, and by far the most common subjunctive type to the *s*-preterite is the *ñä/a*-subjunctive. The formation of the *ñä/a*-subjunctive is straightforward: the initial is not palatalised⁵⁸ and the root-grade in *ä|Ø*-roots is *ä*. Some examples are:

SUBJUNCTIVE		PRETERITE	
{ <i>arñä/a-</i> }	←	[–grad]	{ <i>ar-^Ø/sā-</i> } ‘bring about’
{ <i>āwñä/a-</i> }			{ <i>āw-^Ø/sā-</i> } ‘hit; start’
{ <i>nākñä/a-</i> }			{ <i>nāk-^Ø/sā-</i> } ‘criticise’
{ <i>räyñä/a-</i> }			{ <i>räy-^Ø/sā-</i> } ‘give up’
{ <i>kärkñä/a-</i> }		[+grad], [+pal]	{ <i>šark-^Ø/sā-</i> } ‘bind’
{ <i>läypñä/a-</i> }			{ <i>läyp-^Ø/sā-</i> } ‘leave’
{ <i>kñāñä/a-</i> }		irregular	{ <i>kñās-^Ø/(s)ä-</i> } ‘know’

{*kñāñä/a-*} is irregular because of its vocalism, since we would expect either sbj. *ä*-grade next to prt. *a*-grade or prt. *ä*-grade next to sbj. *ä*-grade. Further, the root *knā* has no closing consonant, which must historically be related to the “stable” *s* of the *s*-preterite, and in principle, we would not expect the *kn* to be palatalised in the subjunctive. All these peculiarities are beyond synchronic explanation, and they are discussed in the diachronic part (see 4.3.3, p 365).

The problem with the *ñä/a*-subjunctive is not so much how it is formed, but more to which *s*-preterites it belongs. The *ñä/a*-subjunctive is certainly the productive formation, the most important alternative formations being the *ä/a*-subjunctive and the *a*-subjunctive, both discussed above. We further find two zero-derived subjunc-

⁵⁸ The only exception known to me is 1sg.sbj. *lyutñam*, which seems to go together with 3pl.prs. *lutseñc* etc.

tives and a *nā*-subjunctive. The distribution between these formations is not very clear: the *a*-subjunctive clearly patterns with the *sā*-less preterite, whereas the *ā*/*a*- and zero-derived subjunctives are obviously relics; the *nā*-subjunctive is a unique case.

{*ā*^{sā}/*sa*}

ā^{sā}/*sa*-subjunctives are very frequent and they belong to one rigid causative pattern with reduplicated preterites. All verbs that form these causatives have *ā*-grade in all stems; the reduplicated preterite may have initial palatalisation, but the initial of the *ā*^{sā}/*sa*-subjunctive is in principle never palatalised. The present is always identical to the subjunctive, except for the vowel *ā* which corresponds to zero in the present, e.g. prs. *lmāṣtār* '(s)he puts' from {*lām*^{sā}/*sa*-} vs sbj. *lmāṣtār* '(s)he will put' from {*lāmā*^{sā}/*sa*-}. Some examples:

SUBJUNCTIVE		PRETERITE		PRESENT	
{ <i>kārnā</i> ^{sā} / <i>sa</i> -}	←	[−pal] { <i>ka-kārnā</i> -}	cf	{ <i>kārn</i> ^{sā} / <i>sa</i> -}	'beat'
{ <i>kālnā</i> ^{sā} / <i>sa</i> -}		{ <i>ka-kālnā</i> -}		{ <i>kāln</i> ^{sā} / <i>sa</i> -}	'make resound'
{ <i>tālā</i> ^{sā} / <i>sa</i> -}		[+pal] { <i>ca-cālā</i> -}		{ <i>tāl</i> ^{sā} / <i>sa</i> -}	'lift'
{ <i>lāmā</i> ^{sā} / <i>sa</i> -}		{ <i>la-lāmā</i> -}		{ <i>lām</i> ^{sā} / <i>sa</i> -}	'put'
{ <i>ṣtāmā</i> ^{sā} / <i>sa</i> -}		{ <i>śa-śsāmā</i> -}		{ <i>ṣtām</i> ^{sā} / <i>sa</i> -}	'establish'

Two verbs are irregular because they have *ā*|*x*-roots: *wārp*- 'urge' and *spārtw*- 'turn (tr.)'. For both verbs the existence of a *sā*/*sa*-present and *sā*/*sa*-subjunctive is ascertained, but because of the heavy root vowel it cannot be established with the forms we have whether there was a contrast between the present and subjunctive stems. Of both, a prs.ptc., *wārpāsmām* and *spārtwāsmām*, and a vn, *wārpāṣlune* and *spārtwāṣlune*, are attested. The present stems are therefore certainly {*wārp*^{sā}/*sa*-} and {*spārtw*^{sā}/*sa*-}, but 3sg. sbj. forms like *wārpaṣ* or *spārtwaṣ*, which would prove sbj. stems {*wārpā*^{sā}/*sa*-} and {*spārtwā*^{sā}/*sa*-} with weakened middle *ā*, are not attested.

{*nā*}

There is one *nā*-subjunctive attested: {*yomnā*-} of 'reach' next to an *s*-preterite {*yom*-*Ø*/*sā*-} and a *nā*^{sā}/*sa*-prs. {*yomnā*^{sā}/*sa*-}. This combination of stems is so peculiar that the verb is an exception in all listings: it has the only *nā*-subjunctive, and logically, it is the only *s*-preterite to combine with a *nā*-subjunctive; additionally, it is one of the few *nā*^{sā}/*sa*-presents. Its preterite participle *yomu* matches the *s*-preterite.

{*nāk*}

The *nāk*-suffix is by all means peculiar, and it is not even directly attested. It is peculiar because it occurs in only two verbs with an isolated pattern and because, unlike most other suffixes, it is not composed of known elements: a final *-k* does not occur elsewhere. It is not attested directly because it is found in two optative forms

only: 3sg.opt.mid. *päknäsi(t)rä* of *päkā*- ‘intend’ and 3sg.opt.mid. *(yä)knässiiträ* of *yäkā*- ‘be careless’. In these forms, we would rather expect a *nā*-subj, even if this brought the total number of that type only to three. In view of the formation of the optative elsewhere, we would have expected the optatives to be {*päknäy*-} and {*yäknäy*-} (with deletion of the *ä* of the subj. {*päknā*-} and {*yäknā*-} as in 3sg.opt. *tākiṣ* ‘may (s)he be’ to 3sg.sbj. *tākaṣ*) – perhaps the *ś* is a kind of hiatus-filler.⁵⁹ The preterites are *ä|ā*-root preterites: {*päkā*-} and {*yäkā*-}; the presents are *nā^{sä}/sa*-presents: {*päknā^{sä}/sa*-} and {*yäknā^{sä}/sa*-}.

{*ññä/a*}

There are two types of *ññä/a*-subjunctives, one being identical to the present and the other having a *sä/sa*- or *äy^{sä}/sa*-present beside it. The first type is analysed as a primary subjunctive in 2.6.5 (p 99); the second type consists of two verbs only:

SUBJUNCTIVE		PRESENT	
{ <i>äksänñä/a</i> -}	vs	{ <i>äksäy^{sä}/sa</i> -}	‘announce’
{ <i>okṣänñä/a</i> -}		{ <i>oksäy^{sä}/sa</i> -}	‘grow’

Since *sä/sa*-presents are very frequent, it would be attractive to derive the presents from the subjunctive, i.e. something like {*äksänñä-sä/sa*-} → {*äksäy^{sä}/sa*-}, but apart from the fact that a change *ññä/sa* > *sä/sa* lacks parallels, this is not possible because of the unpalatalised *s* in the present stem. Thus, we have to assume that both the present and the subjunctive are derived from the root.

2.6.7 ZERO SUBJUNCTIVES

Since verbs with an identical preterite and subjunctive stem are analysed as primary preterites with zero-derived subjunctive, the number of zero-derived subjunctives is relatively large. However, the number of types is limited. The largest group consists of zero subjunctives with root preterites to *x|ä*-roots, and a small group of zero subjunctives to *x|Ø*-roots with *s*-preterites. In addition, there is a limited group of present-subjunctives.

ä|ā-roots

This is the group of verbs with both gradation (in the subjunctive and the preterite) and palatalisation (in the preterite) of which many examples have been cited in 2.5.4 (p 66). The singular active of the subjunctive and the plural active of the preterite have *a*-grade and all other forms have *ä*-grade; the singular active of the preterite has

⁵⁹ On this option, cf in particular Winter (1965a: 207-210), who compares the “intrusive” *-k-* in e.g. Tocharian A *lwākis*, gen.sg. in *-is* of the word *lu* ‘animal’.

initial palatalisation if the initial is palatalisable. This subjunctive-preterite type corresponds to *a-*, *nā-* and *⟨n⟩*-presents, and *a*-grade zero presents. Some examples are:

SBJ.SG./PRT.PL. ACT.	PRT.SG.ACT.	OTHER	PRESENT	
{kalā-}	[+pal] {śālā-}	{kālā-}	{kālñā-}	'bring'
{krasā-}	{śrāsā-}	{krāsā-}	{krāsñā-}	'know'
{tarkā-}	{cārkā-}	{tārkā-}	{tārñā-}	'let go'
{t ^s awkā-} ⁶⁰	{śāwkā-}	–	{yokā-}	'drink'
{kalkā-}	[–pal] {kālkā-}	{kālkā-}	{y-}	'go'
{klaysā-} ⁶⁰	{klāysā-}	{klāysā-}	{klāysñā-}	'sleep'
{prawtkā-}	{prāwtkā-}	{prāwtkā-}	–	'fill'?
{t ^s alpā-}	{t ^s ālpā-}	{t ^s ālpā-}	{śalpā-}	'pass away'

The difference between *tsālp* '(s)he passed away' and *kālk* '(s)he went' on the one hand and *śuk* '(s)he drank' and *śāl* '(s)he brought' on the other suggests the existence of two subtypes among verbs of this type with a palatalisable initial. Verbs with a palatalised initial seem to be transitive and those with an unpalatalised – but palatalisable – initial intransitive (Winter 1980a, e.g. 434). With palatalisation we find:⁶¹ *kātkā-* 'cross', *krāsā-* 'know', *tārkā-* 'let go', *lāwā-* 'send', *t^sawkā-* 'drink'; without palatalisation we find: *kālkā-* 'go', *lāytā-* 'go away', *sātkā-* 'spread (intr.)', *spāntā-* 'trust', *t^sālpā-* 'pass away'. The only exception is *lāmā-* 'sit' with a 3sg.prt. *lyām*, which is semantically intransitive (on syntactic transitive use, cf Winter 1980a: 435–437 and Thomas 1988).

One verb with a derived preterite has the same gradation pattern: *pānw-* 'stretch'. The combination of the 3pl.prt. *panwar* and the prt.ptc. *pānwō* suggests a 3sg.sbj. *panwaš**, 3pl.sbj. *pānwēñc**, 3sg.prt. *pnu** etc.

ā|ā-roots

With *ā|ā*-roots we find exactly the same patterns as with *ā|ā*-roots, but without gradation and palatalisation. Some examples:

SUBJUNCTIVE-PRETERITE		PRESENT	
{kākā-}	cf	{kenā-}	'call'
{kātkā-}		{kāt⟨n⟩kā-}	'rise'
{kotā-}		{kotñā-}	'cut up'
{tāpā-}		{śāwā-}	'eat'

A group of *x|ā*-root verbs with stable *ā*-grade in the subjunctive and preterite follows exactly the same pattern, cf sbj.-prt. {pālā-} vs prs. {pāllā-} of 'praise'; sbj.prt.

⁶⁰ Only sbj.sg.act. attested.

⁶¹ Of suppletive verbs, the subjunctive-preterite roots are cited.

{pāykā-} vs prs. {päykā-} of ‘write, paint’ or sbj.prt. {mäntā-} vs prs. {mäntā-} of ‘scold’. All of these are discussed under derived presents in 2.6.9 (p 115).

A small number of verbs with a monosyllabic sbj.-prt. *ā*-stem have no major irregularities in the subjunctive or preterite: *klāw*- ‘fall’, *yā*- ‘go’, *lā*- ‘wipe off’, and possibly *plā*- of unknown meaning, have stable sbj.-prt. stems {klā-}, {yā-}, {lā-}, and {plā-}; *āk*- ‘lead’ has a stable suppletive sbj.-prt. {wā-}. Understandable peculiarities are a *w*-glide in the optative, e.g. 1sg.opt. *wāwim*, and the preservation of root-final *ā* in the unsuffixed 3sg.prt., e.g. *klā*, *yā*; understandable, since according to the rules the “regular” forms would have been ***wim*, ***kāl* and ***y* or ***i* (!). The same *w*-glide is found in the optative to the subjunctive {tā-} of ‘put’, which has a different preterite type.

For a large number of verbs no gradation variants are attested, and many of them could be of the regular grading type of *ä|ā*-roots, since the *a*-grade forms or the forms with palatalised initial are just incidentally not attested. However, there may exist a non-grading type with *ä*-vocalism in the root. I have found the following *ä*-grade form that should have *a*-grade in the grading pattern of the *ä|ā*-roots: 3sg. *skāṣ* of unknown meaning. If this form cannot receive a different explanation, it proves the existence of a non-grading *ä|ā*-type; otherwise, there are many forms that could belong to such a type, but none that proves it.

x|Ø-roots

Zero subjunctives to *x|Ø*-roots are rare: most *s*-preterites combine with derived subjunctives. Nevertheless, a small group of verbs belongs to this category:

SUBJUNCTIVE		PRETERITE		PRESENT	
{tā-}	=	{ca/tāS-Ø/(s)ā-}	cf	{tā ^{sā} /sa-}	‘put’
{tānk-}, {tānkñā/a-}		{cank-Ø/sā-}		{tānk ^{sā} /sa-}	‘check’
{trānk-}, {trānkñā/a-}		{trānk-Ø/sā-} ⁶²		{trānk ^{sā} /sa-}	‘hang’
{prāk-}		{pra/āk-Ø/sā-}		{prak ^{sā} /sa-}	‘ask’
{märk-}		{mark-Ø/sā-}		–	‘smudge’?
{t ^s āk-}		{t ^s āk-Ø/sā-}		{t ^s āk ^{sā} /sa-}	‘glow’

Many of these verbs have something peculiar. ‘ask’ and ‘put’ stand out in being the only *s*-preterites with gradation in Tocharian A; ‘put’ is further irregular in having no “closing” consonant at the right and an isolated gradation pattern with *ā* : *a* : *ä* (cf *knā*- ‘know’). The verbs ‘check’ and ‘hang’ have variants for the subjunctive stem, which clearly shows that this pattern was not vivid anymore. For ‘check’, the zero subjunctive is only attested in the verbal noun *tānklune*, a category where we also find isolated *ä/a*-subjunctives; {märk-}, too, is only attested in the vn *märklune*. The subjunctive stem of ‘glow’ seems to be unproblematic, as it is attested with a

⁶² No active forms attested.

3pl.opt.mid. *tsāsintrā*, where the palatalised *ś* proves that the subjunctive stem had no vowel following the *-k*: {*tsāk-*}.

kläy- ‘be necessary’ could theoretically also belong here: the attested *klintär* and *klyintär* are ambiguous as to whether they represent {*kläyñä-tr*} or {*kläyn-tr*}; only in the latter case would it be parallel to the other verbs listed here. However, with its *-n*, a root final not found with the other verbs, it is more probable that the two forms are to be analysed as {*kläyñä-tr*} (see 2.6.9, p 114), which is confirmed by the comparison with Tocharian B (see 4.8.2, p 472).

A group of at least three *ä|Ø*-root presents is completely parallel to the zero subjunctives above:

PRESENT		IMPERFECT		SUBJUNCTIVE		PRETERITE	
{tränk-}	=	{crank- _{Ø/sā} }	cf	{weñä/ _a }	cf	{weñā-}	‘say’
{säw-}		{saw- _{Ø/sā} }	⁶³	{swāsā-}		{swāsā-}	‘rain’
{tsäyp-}		{säyp- _{Ø/sā} }		?		?	‘dance’

‘say’ is the clearest case, since here the preterite and subjunctive stems are suppletive and the prs. and ipf. can be analysed as an independent verb morphologically, thus making it completely parallel to the zero subjunctives above. ‘rain’ is a complicated case because the *äsä*-extension for the preterite and subjunctive stems is completely isolated: the morphological relationship to the present comes close to suppletion. To what extent ‘dance’ can be analysed as a morphological subjunctive with corresponding preterite is unclear because no syntactically subjunctive or preterite forms are attested so far. In fact, I would not be surprised if these stems were from another root, the verb ‘dance’ being suppletive, too.

present-subjunctives

Most present-subjunctives have the suffix {*ä/a*} and derivatives of it. They are analysed as primary presents with zero-derived subjunctives because the *ä/a*-suffix occurs as a present suffix. It should be noted, however, that the same suffix also occurs as a subjunctive suffix, which could be an argument to analyse these present-subjunctives as primary subjunctives instead.

⁶³ Certainly to be set up like this, on the basis of 3pl. *sawr-äm* A298a4. *svawrä* A274a2 must be a mistake. For the lack of initial palatalisation I am unable to offer an explanation on the synchronic level.

{ ^ä /a}		{ññ ^ä /a}		{ ^{sä} /sa}	
{kłos ^{sä} /sa-}	‘hear’	{aršašāññ ^ä /a-}	‘fit’	{enäs ^{sä} /sa-}	‘honour’
{cāmp ^ä /a-}	‘can’	{kāšāññ ^ä /a-}	‘scold’	{wāynäs ^{sä} /sa-}	‘command’
{pās ^{sä} /sa-}	‘protect’	{klopāññ ^ä /a-} ⁶⁴	‘express sorrow’		
{pro ^{sä} /sa-}	‘be ashamed’	{krāšāññ ^ä /a-}*	‘be annoyed’		
{yār ^{sä} /sa-}	‘revere’	{täwnkāññ ^ä /a-}	‘love’		
{wlāy ^{sä} /sa-}	‘carry out’	{slānkāññ ^ä /a-}*	‘?’		
{šāw ^ä /a-}	‘live’				

kłos- ‘hear’ deviates in having a hapax legomenon 3sg. preterite form *klyoṣ* next to the expected and frequently attested *klyoṣā*, and a secondary present stem {kłosnäs^{sä}/sa-}, while earlier present-subjunctive function of {kłos^{sä}/sa-} is shown by e.g. inf. *klyossi*. The present-subjunctives {krāšāññ^ä/a-} and {slānkāññ^ä/a-} are inferred on the basis of a prs.ger. *krāšiññāl* and a vn *slānkiñlune*. The problem with {enäs^{sä}/sa-} and {wāynäs^{sä}/sa-} is that there is no simple guideline to define the shape of the root. If the roots are *en-* and *wāynā-* respectively, we have to assume a special subset of present-subjunctives with the suffix {^{sä}/sa}. If the roots can be set up as *enäs-* and *wāynās-*, they could be perfectly parallel to the verbs with a ^ä/a-suffix. The verbs with the ññ^ä/a-suffix must be treated separately, and not as special ^ä/a-present-subjunctives because their roots are certainly too long and they are denominal formations.

{kākā^{ckä}/tka-} ‘be glad’ (if the stem has to be set up like this) certainly functions as a present (cf prs.ptc. *kātkmām*), but it could be a prs.-sbj. of the type discussed above; as a ^ä/a-present, it would be isolated (since all others have *a*-grade in the root).

The verb *tākwā-* of unknown meaning seems to have a prs.-sbj. {tākwā-}, witness inf. *tākwātsi*, vn *tākwālune*. {pota-} ‘flatter’ seems to be another case of a present-subjunctive. For structural reasons, and because of the comparison with Tocharian B, one would expect that this verb forms a subjunctive in *ā* (which is weakened to *a* after *o*) and a present in *a* with root grade *a* (which is not distinct from *ā* before *w*). A third verb that could have a prs.-sbj., *krop-* ‘gather’, is peculiar, since it has a clear *nā*-present and *ā*-subjunctive, both well attested, but there are indications for a prs.-sbj. stem {krop^ä/a-} next to it.

2.6.8 PRIMARY PRESENTS

Even when ^ä/a-present-subjunctives are analysed as primary subjunctives with zero-derived presents, the number of primary presents is relatively large. There are principally two groups to be distinguished: presents in suppletive patterns and presents with derived preterites and subjunctives.

⁶⁴ Inferred from the ipf.

Presents in suppletive patterns fall into three categories: Ø-presents, ^ä/_a-presents and _ä-presents.

{Ø}

Since Ø-presents are well attested in non-suppletive paradigms, the following that are found in suppletive verbs can in principle be considered “real presents”. However, *tränk-* has an imperfect beside it that is formed like a preterite, so that it is morphologically rather a subjunctive; completely parallel to *tränk-* is *t^säyp-* ‘dance’, to which no suppletive preterite-subjunctive root is attested. It must be stressed that there is nothing in the formation of the present *tränk-* itself that leads to an analysis as a morphological subjunctive – it is only its imperfect that suggests it. Thus, other verbs where the imperfect is not attested could theoretically belong to the same pattern.

PRESENT		PRETERITE-SUBJUNCTIVE ROOT	
{käl-}	cf	<i>stāmā-</i>	‘stand’
{ken-}		<i>kākā-</i>	‘call’
{tränk-}		<i>weñ-</i>	‘say’
{y-}		<i>kälkā-</i>	‘go’
{yok-}		<i>t^säwkā-</i>	‘drink’

{^ä/_a}

There seems to be no way to know whether suppletive ^ä/_a-presents are morphological presents or subjunctives because this suffix is attested in both functions.

PRESENT		PRETERITE-SUBJUNCTIVE ROOT	
{ ^ä _{ka} -}	cf	<i>wā-</i>	‘lead’
{nas-}		<i>tākā-</i>	‘be’
{pär ^ä / _a -}		<i>kāmā-</i>	‘carry’
{yp ^a / _a -}		<i>yām-</i>	‘do’
{šäm ^ä / _a -}		<i>lāmā-</i>	‘sit’

Two of the presents above have special irregularities. ‘do’ is relatively easy to describe: it has two variants, {ya-} and {ypa-}, which are distributed like _ä- and _a-variants of ^ä/_a-paradigms but have no further resemblance to _ä- or _a-variants at all. ‘be’ is difficult to describe because it has many variant forms. The longest stem seems to be {na^{sä}/_{sa}-}: *nasa*-forms are unambiguously attested in 1sg. *nasam* and 1pl. *nasamäs*, but the *našä*-forms could theoretically also be *nas*-forms: 2sg. *našt*, 3sg. *naš*, and 2pl. *naš*. A shorter stem {n(_ä)-} or perhaps {n^ä/_a-} is found in short 3sg. forms *nä-m* (with 3sg. suffix), *nä-m* (with pl. suffix) and 3pl. *neñc* and *neñci* (with 2sg. suffix). A typical problem is that we also find a suffixed long 3sg. form *naš-äm*, *naš-*

ām without geminate, so that the analysis seems to be {na-š-} instead of {našä-š-} or {nas-š-} (for parallels of *nas-* to a non-suppletive pattern, see 2.6.9, p 110).

{*ā*}

Only two suppletive presents have a root-final *ā* and since this is otherwise only found with preterites and subjunctives, these presents are best seen as morphological subjunctives.

PRESENT		PRETERITE-SUBJUNCTIVE ROOT	
{ <i>läkā</i> -}	cf	<i>pälkā</i> -	'see'
{ <i>šāwā</i> -}		<i>tāpā</i> -	'eat'

Primary presents with derived preterites or subjunctives next to them are predominantly of one type: *ā*-presents with *ā*-preterites or subjunctives. This pattern is attested with certainty for the following verbs:

PRESENT		SUBJUNCTIVE		PRETERITE	
{pälk-}	→	(<i>ä</i> -grade)	–	=	{pälkā-} ‘shine’
{sälp-}			{sälpā-}		{sälpā-}* ‘burn’
{päyk-}		(<i>ā</i> -grade)	{päykā-}		{päykā-} ‘paint; write’
{läyk-}			{läykā-}		{läykā-} ‘wash’
{säl-}			–		{sälā-}* ‘jump’
{säyp-}			–		{säypā-}* ‘anoint’

The preterite to {*säl-*} is not attested directly: a fragmentary *///slu[.]t* A344a5 is likely to be the preterite participle, and because of the final vowel *u* it must have been either *saslu* or *sāslu*. Since the first type only fits *sā/śa*-presents, we must probably restore (*sā*)*slu(m)t* {*sā-sälā-w-nt*}. If these assumptions are correct, the preterite-subjunctive stem was {*sälā*-}. The preterites {*läykā*-}, {*säypā*-} and {*sälpā*-} are also inferred from preterite participles, but these are attested undamaged (or only slightly damaged in the case of {*sälpā*-}).

The *ā* : *ā* gradation of *päyk-*, *läyk-*, *säl-* and *säyp-* is exactly parallel to zero-presents in *-ā* that are discussed in 2.6.10 (p 115).

One verb has a comparable pattern but a different preterite-subjunctive stem: prs. {*sāw-*} 'rain' combines with a prt.-sbj. {*sāw-āsā*-}.

Of the root *plāw-* 'float' only two forms are attested: prt.ptc. *plumānn* and 3pl.prt. *plawar*. If these are from one verb, they suggest the same basic pattern as the primary presents with *ā*-preterite-subjunctives above, but with root gradation in the latter: sbj. {*pl^a/āwā*-}, prt. {*pl^ā/awā*-} vs prs. {*plāw-*}.

The following Ø-presents could belong to the same pattern, or to the pattern of the suppletive verbs, as only the Ø-present is attested (and even the Ø-present is not in all cases certain): {*kälñ-*} 'sound', {*knäsw-*} 'approach', {*kräw-*} '?', {*tärm-*}

‘tremble’, {päst-} ‘lure’, {pränk-} ‘?’, {mlok-} ‘?’, {smäy-} ‘smile’, {tʰop-} ‘?’, {tʰpok-} ‘suck’ (?).

2.6.9 DERIVED PRESENTS

The vast majority of the presents is derived. We find the following suffixes: {^ʰä/a}, {a}, {nā}, {sā/sa}, {nāsā/sa}, {nāsā/sa}, and the infix <n>.

{^ʰä/a}

A small group of verbs forms a ^ʰä/a-present next to a derived ā-preterite-subjunctive. Since the preterite-subjunctive cannot be derived from the present stem, both have to be derived from the root. The pattern is attested directly for *pānw*- ‘stretch’ and *wās*- ‘dress’ and probably *wāl*- ‘cover’; it can be inferred for *māl*w- (*maļ*w-) ‘press’. *nas*-, the present root of the suppletive verb for ‘be’, could be a further parallel, but since it displays several irregularities, caution is called for (see 2.6.8, p 108).

PRESENT	PRETERITE	
{nāsā/sa-} etc	{nāsā-}*	‘be’
{pañwā/a-}	{pā/anwā-}	‘stretch’
{maļwā/a-}	—	‘press’
{waļā/a-}	{wālā-}	‘cover’
{wāsā/sa-}	{wāsā-}	‘dress’

Although a subjunctive is only attested for *wās*-, i.e. {wāsā-}, based on the opt. {wāsāy-}, it is very likely that an ā-subjunctive was regular next to the ā-preterite. The alternative, namely a ^ʰä/a-present-subjunctive with derived ā-preterite, seems impossible because we would then expect palatalisation and no change of root grade, i.e. **{pañwā-}, **{waļā-}, **{wašā-}. The pattern of the derived preterite-subjunctive is not easy to establish: 3pl.prt. *panwar* proves a grading stem, and 1sg.prt. *wse* etc could belong to the same type, but it seems to be middle only. {wālā-} clearly deviates, but it probably has a parallel in *nām̐tsu*, the prt.ptc. of the root *nas*- + *tākā*- ‘be’. This preterite participle presupposes a prt. {nāsā-}, with a gradation pattern parallel to that of ‘cover’; however, this remains hypothetical because {nāsā-} is not attested as a preterite: the preterite of ‘be’ is {tākā-}.

The pattern of the present itself is also problematic. In {pañwā/a-} and {maļwā/a-} the palatalised *ñ* and *ļ* are certainly found throughout the paradigm, but {waļā/a-} and {wāsā/sa-} are not attested well enough to be certain. Probably, palatalisation spread in the first two verbs because the root-final *w* was unaffected, whereas the other two verbs had normal ^ʰä/a-variants. (On the stem variants of *nas*-, cf above under 2.6.8, p 108.)

The assumption that the present was originally alternating would lead to setting up the root of {maļwā/a-} as *māl*w- by analogy with *pānw*-. The only counter-argument could be the 3sg. *malywā*, which is normally classified as an imperfect

although the context hardly allows to prove this. It cannot be a preterite for morphological reasons, however, since the root grade is aberrant, as is the preservation of root-final $-\bar{a}$. If, unlike the other verbs, *malw-* is a present-subjunctive, *malywā* would be a morphological imperfect, possibly (but not necessarily) functioning as a preterite. In that case, the root would need to be set up as *malw-*. Since with the forms attested {*malw^ä/a-*} could be perfectly parallel to *pānw-*, I prefer to set up the root as *mälw-*; accordingly, I would expect a subjunctive {*m^a/älwā-*}* and a preterite {*m^ä/älwā-*}* (prt.ptc. *mälwo**).

The present of *spārtwā-* ‘turn’, {*sparcw(a)-*}, is parallel to *pānw-* and *mälw-* in having palatalisation before the final *w* and in the root grade; however, it also shows forms that have root-final $\bar{a}$ (surface *a*) in the present, so that it is discussed in 2.6.10 (p 116) under zero-presents with root-final $\bar{a}$ and *a*-grade in the root.

{*a*}

a-presents form a coherent, and probably open, category of intransitive verbs with a middle only present. All non-present stems have a root-final $\bar{a}$, and the present is probably to be analysed as derived from the preterite-subjunctive. Of some verbs only forms with $\bar{a}$ -vocalism in the root are attested, but others display root gradation in the preterite-subjunctive, and of this class, no verb offers counterexamples against the assumption that all belonged to one grading type (see 2.6.7, p 103). Some examples are:

PRESENT		PRETERITE-SUBJUNCTIVE		
{yāwa-}	←	no gradation attested	{yāwā-}	‘strive for’
{rāytwā-}			{rāytwā-}	‘be connected’
{wāyka-}		sbj. gradation attested	{w ^a /āykā-}	‘perish’
{sāyka-}			{s ^a /āykā-}	‘overflow’
{sāyka-}		prt. gradation attested	{s ^ä /atkā-}	‘spread (intr.)’
{spānta-}			{sp ^ä /antā-}	‘trust’

Since all verbs in this class are intransitive, we do not expect initial palatalisation in the prt. act.sg. according to the rule formulated and discussed in 2.6.7 (p 103); indeed, it is not found.

{<*n*>}

The *n*-infix has two variants: the *nā*-variant and the *ñk*-variant (see also 2.5.1, p 50). Nasal infix presents are formed to *x|ā*-roots (with preterite-subjunctives ending in $-\bar{a}$) and they are mostly transitive. The *nā*-variant is in complementary distribution with the *ñk*-variant: the former is the default formation, whereas the latter is found in verbs with roots ending in *Ckā*, i.e. root-final $\bar{a}$ preceded by *k* and another consonant. The *nā*-variant assimilates several different preceding consonants: *tn* → *n*, *rkn* → *rn*, *rpn* → *rn*, *rṣtn* → *rṣn*, *ln* → *ll*. However, sometimes assimilation is not

found: *tn* is preserved in {*kotnā-*} and possibly in {*wātnā-*}* (based on a damaged imperfect A295a3 *wātñā-//*), but changed to *n* everywhere else; *p* is preserved in {*wārpñā-*}, but lost in {*kārnā-*}; and the cluster *lpn* is preserved in {*kālpñā-*}. One is tempted to assume that an inserted *ä* before the *n* could explain the preserved clusters, but with the examples of the nasal presents only, this leads to the complicated rule that insertion took place after the heavy sequences *āRC*, *āC* and *oC*, but not after the light sequence *äC*. Moreover, after *āRC* it was lost again (if it was inserted at all).⁶⁵ Some examples:

PRESENT		PRESENT		PRESENT-SUBJUNCTIVE	
{ <i>kārp-nā-</i> }	>	{ <i>kārnā-</i> }	←	{ <i>kārpā-</i> }	‘descend’
{ <i>kāl-nā-</i> }		{ <i>källā-</i> }		{ <i>k^a/älā-, śälā-</i> }	‘obtain’
{ <i>kāt-nā-</i> }		{ <i>kānā-</i> } ⁶⁶		{ <i>k^a/atā-</i> } ⁶⁷	‘strew’
{ <i>tärk-nā-</i> }		{ <i>tärnā-</i> }		{ <i>t^a/ärkā-, cärkā-</i> }	‘let go’
{ <i>wārp-nā-</i> }		{ <i>wārpñā-</i> }		{ <i>wārpā-</i> } ⁶⁸	‘enjoy’
{ <i>skāy-nā-</i> }		{ <i>skāynā-</i> }		{ <i>skāyā-</i> }	‘try’

Since *nā*-presents are formed to predominantly transitive verbs, the preterite has initial palatalisation if it is grading, following the rule discussed in 2.6.7 (p 103).

Two verbs display irregularities. *knā-* ‘know’ forms a *nā*-prs. {*knā-nā-*}, but combines with an *s*-prt. {*kñas-*} and a derived subjunctive {*kñāñ^ä/a-*} instead of a preterite-subjunctive in *-ā* (see 2.6.6, p 101). *krop-* ‘collect’ has some unambiguous *nā*-present forms, but it has forms with *ä* beside them, e.g. prs.ptc. *kropnmām*, *kropnāmām* vs *kropmām*. Since this short stem is also found in subjunctive function, it is best set up as {*krop^ä/a-*}. Although *p* is not palatalisable and the medial *a* of the *a*-variants is in many cases reduced to *ä*, and medial *a* could be identical to the weakened root-final *ā* of the subjunctive {*kropā-*}, a *’ä/a-* stem is preferable since this is the only type attested in present-subjunctive function.

The *ñk*-variant of the nasal infix presents is completely parallel to the *nā*-variant: it is formed to *x|ā*-roots of transitive verbs and grading preterites have initial palatalisation. The difference with *nā*-presents is that *ñk*-presents are formed to roots in *Ckā*; the *ñ* is infixed between the *k* and the consonant that precedes it. Examples are:

PRESENT		PRETERITE-SUBJUNCTIVE	
{ <i>kātñkā-</i> }	←	{ <i>kātkā-</i> }	‘rise’
{ <i>kātñkā-</i> }		{ <i>k^a/atkā-, käckā-</i> }	‘cross’

⁶⁵ See Kim (2007a) for this theory in general, for the historical explanation, and for many related matters.

⁶⁶ The *ä* is always found in an open syllable, so that the present is in fact *knā-*.

⁶⁷ Active singular of the preterite not attested.

⁶⁸ Middle only.

PRESENT	PRETERITE-SUBJUNCTIVE	
{pāls·n·kā-}	{pālskā-}	‘think’
{mros·n·kā-}	{mroskā-}	‘feel weary’

In *nk*-presents, the root-final *ā* is never weakened because it is preceded by an extra *ā*-syllable, cf weakened *kātka-* or *kātkā-* vs non-weakened *kātānkā-*.

{*sā*/*sa*}

The *sā*/*sa*-suffix is by far the most frequent present suffix. With only a few exceptions, the *sā*/*sa*-presents are formed to reduplicated preterites (with *āsā*/*sa*-subjunctives) and *s*-preterites (with mostly *nā*/*a*-subjunctives, see 2.6.6, p 101, and 2.6.7, p 105). If the preterite has initial palatalisation or gradation, the *sā*/*sa*-present has no palatalisation and *ā*-grade. Some examples:

PRESENT		PRETERITE	
{tānk ^{sā} / <i>sa</i> -}	← <i>s</i> -preterite	{cank- ^Ø / <i>sā</i> -}	‘check’
{nāk ^{sā} / <i>sa</i> -}		{ñak- ^Ø / <i>sā</i> -}	‘destroy’
{prak ^{sā} / <i>sa</i> -}		{pr ^a /āk- ^Ø / <i>sā</i> -}	‘ask’
{kālñ ^{sā} / <i>sa</i> -}	reduplicated preterite	{ka-kālñā-}	‘make resound’
{tāl ^{sā} / <i>sa</i> -}		{ca-cālā-}	‘lift’
{wāyk ^{sā} / <i>sa</i> -}		{wa-wāykā-}	‘remove’

The following *sā*/*sa*-presents follow different patterns:

PRESENT		SUBJUNCTIVE		PRETERITE	
{ākṣāy ^{sā} / <i>sa</i> -}	← root, cf	{ākṣāññā/ <i>a</i> -}	cf	{ākṣāññā-}	‘announce’
{oksāy ^{sā} / <i>sa</i> -}		{okṣāññā/ <i>a</i> -}		{okṣāññā-}	‘grow’
{lānt ^{sā} / <i>sa</i> -}		{lāñcā/ <i>a</i> -}		{lācā-}	‘go out’
{entsā ^{sā} / <i>sa</i> -}	← root, cf	{entsā-}	=	{ent ^{sā} -}	‘seize’
{tāw ^{sā} / <i>sa</i> -}		{twāsā-}		{twāsā-}	‘light’
{lā ^{sā} / <i>sa</i> -}	← prt.-sbj.	{lā-}		{lā-}	‘wipe off’
{āy ^{sā} / <i>sa</i> -}	← sbj.	{āy-}	cf	{wās- ^Ø / <i>(s)</i> ā-}	‘give’
{yomñā ^{sā} / <i>sa</i> -}		{yomñā-}		{yom- ^Ø / <i>sā</i> -}	‘obtain’

It is difficult to see a system in this list: most verbs seem to have a *sā*/*sa*-present only to “solve” irregularities of other stems. This seems to be true especially of ‘seize’, ‘wipe off’ and ‘obtain’, but possibly for ‘light’ as well. ‘announce’ and ‘grow’ are peculiar because of the *i* /*āy*/ that precedes the suffix (cf also under 2.6.6, p 103). ‘give’ is suppletive: the present and subjunctive stems follow a pattern where otherwise an *s*-preterite would have been regular. ‘go out’ is almost completely irregular, but the preterite participle *laltu*, next to more frequent *lantu*, could fit together with an *s*-preterite, which in turn would fit to the *sā*/*sa*-present. Except for

the nasal in the subjunctive root, the preterite could be a normal $\bar{a}$ -preterite derived from the subjunctive.

{ $n\bar{a}^{\bar{s}\bar{a}}/sa$ }

$n\bar{a}^{\bar{s}\bar{a}}/sa$ -presents are rare, and found in isolated patterns:

PRESENT		PRETERITE		SUBJUNCTIVE	
{ $p\bar{a}kn\bar{a}^{\bar{s}\bar{a}}/sa$ }	←	{ $p\bar{a}k\bar{a}$ -}	cf	{ $p\bar{a}kn\bar{a}k$ -}	‘intend’
{ $y\bar{a}kn\bar{a}^{\bar{s}\bar{a}}/sa$ }		–		{ $y\bar{a}kn\bar{a}k$ -}	‘be careless’
{ $yn\bar{a}^{\bar{s}\bar{a}}/sa$ -}		{ $y\bar{a}$ -}		–	‘go’

The parallelism between the three $n\bar{a}^{\bar{s}\bar{a}}/sa$ -presents given here depends of course on the explanation of the $n\bar{a}k$ -subjunctives (see 2.6.6, p 102) and the subjunctive type of $y\bar{a}$ -. If $y\bar{a}$ - is compared with the verbs it resembles most, one would rather expect it to have a prt.-sbj. { $y\bar{a}$ -}, just like { $k\bar{l}\bar{a}$ -}, { $\bar{l}\bar{a}$ -}, { $w\bar{a}$ -} etc (see 2.6.7, p 104). If the k of the $n\bar{a}k$ -subjunctives can receive an alternative explanation, the presents could be lined up with { $yomn\bar{a}^{\bar{s}\bar{a}}/sa$ -} (see above).

{ $n\bar{a}^{\bar{s}\bar{a}}/sa$ }

In addition to the small group of verbs with a -subjunctives, there are only two other verbs that form a $n\bar{a}^{\bar{s}\bar{a}}/sa$ -present. It is not easy to generalise over $n\bar{a}^{\bar{s}\bar{a}}/sa$ -presents: whereas they all seem to form an s -preterite (with or without $s\bar{a}$ -suffix), the subjunctives are from different classes.

PRESENT		PRETERITE		SUBJUNCTIVE		PRT.PTC.
{ $t\bar{a}mn\bar{a}^{\bar{s}\bar{a}}/sa$ -}	←	{ tam -}	cf	{ $c\bar{a}ma$ -}	<i>tatmu</i>	‘be born’
{ $n\bar{a}kn\bar{a}^{\bar{s}\bar{a}}/sa$ -}		{ nak -}		{ $n\bar{a}ka$ -}	<i>nanku</i>	‘perish’
{ $p\bar{a}kn\bar{a}^{\bar{s}\bar{a}}/sa$ -}		{ pak -}		{ $p\bar{a}ka$ -}	<i>pakku</i>	‘boil; ripen’
{ $w\bar{a}l(l)\bar{a}^{\bar{s}\bar{a}}/sa$ -}		{ $w\bar{a}l-\emptyset/\bar{s}\bar{a}$ -}		{ $w\bar{a}la$ -}	<i>walu</i>	‘die’
{ $t^s\bar{a}kn\bar{a}^{\bar{s}\bar{a}}/sa$ -}		{ t^sak -}		{ $t^s\bar{a}ka$ -}	<i>tsatsku</i>	‘burn’
{ $k^w\bar{a}mn\bar{a}^{\bar{s}\bar{a}}/sa$ -} ⁶⁹		–		{ $\bar{s}\bar{a}m\bar{a}/a$ -}	<i>kakmu</i>	‘come’
{ $r\bar{a}yn\bar{a}^{\bar{s}\bar{a}}/sa$ -}		{ $r\bar{a}y-\emptyset/\bar{s}\bar{a}$ -}		{ $r\bar{a}y\bar{n}\bar{a}/a$ -}	<i>raryu</i>	‘give up’
{ $kl\bar{a}yn\bar{a}^{\bar{s}\bar{a}}/sa$ -}		–		{ $kl\bar{a}y\bar{n}\bar{a}/a$ -} ⁷⁰	–	‘be necessary’

Next to { $k^w\bar{a}mn\bar{a}^{\bar{s}\bar{a}}/sa$ -}, no preterite is attested, but the preterite participle *kakmu* is compatible with the s -preterites of the other verbs. { $m\bar{a}ska$ -} ‘be’, which was tentatively added to the a -subjunctives, functions as a present and has no $n\bar{a}^{\bar{s}\bar{a}}/sa$ -present beside it. The appurtenance of $r\bar{a}y$ - to this group of presents is relatively

⁶⁹ The inflexion of this present is discussed in 4.3.1 (p 351).

⁷⁰ Next to secondary { $kl\bar{a}y\bar{n}\bar{a}/a$ -}.

clear because the preterite and the preterite participle have no *n*. Two verbs that are parallel to *räy-*, however, are not easy to classify because one has an *n* in the preterite and the other has an *n* in the preterite participle (the appurtenance of *kläy-* or *kläyn-* is not completely certain exactly because no other stems than the present and the subjunctive are attested):

PRESENT	SUBJUNCTIVE	PRETERITE	PRT.PTC.
{räynäsä/sa-}	{räyñä/a-}	[-n] {räy- ^o /sä-}	[-n] <i>raryu</i> ‘give up’
{säynäsä/sa-}	{säyñä/a-}	[+n] {säyn- ^o /sä-}	[-n] <i>sasyu</i> ‘satisfy’
{āwnäsä/sa-}	{āwñä/a-}	[-n] {āw- ^o /sä-}	[+n] <i>onu</i> ‘hit; start’

The difficulty with *säy-* and *āw-* is that the *n* seems to be part of the root in the prt. {säyn-^o/sä-} and the prt.ptc. *onu* respectively, which would make the presents *sä/sa*-presents. However, if this analysis is followed, the missing *n* in the prt.ptc. *sasyu* and the prt. {āw-^o/sä-} is unexplained. Thus, there seems to be no other way than to view these roots as “hybrid” *säy-n-* and *āw-n-*, respectively; unfortunately, this notation gives no clue as to where the *n* is found and where it is not.

2.6.10 ZERO PRESENTS OR INTERNALLY DERIVED PRESENTS

The analysis of stem patterns presented in this whole section 2.6 (p 94) is fully based on suffixes. This means that if the suffix of two stems is the same, but there is another distinctive feature, they are still analysed as zero-derived stems. As it turns out, quite a few Tocharian A zero presents have such a distinctive feature: a different grade of the root; that is, the present and the preterite-subjunctive have the same suffix, but differ in root grade, so that we could also term them “internally derived”. Logically, if the present and subjunctive stems do not have another distinctive feature, they are the same and thus they are present-subjunctives. Most present-subjunctives do not have a root-final *ā*, so that the preterite is different as it is derived with an *ā*-suffix. In spite of the bad attestation of the verbs in question, we can assume that if the present-subjunctive ended in *ā*, all stems of the verb were identical (cf *täkwā-* and *wäypā-* below). We find present-subjunctives with the suffixes {^ä/a} and {ññä/a}; presents that differ only in root grade from the subjunctive have the suffix {ā} (some of these could also be analysed as having a suffix {a}, cf below).

{ā}

Of some verbs, we know the present and subjunctive stems and we can be certain of the pattern. Since there are no presents derived from preterites or subjunctives by means of an *ā*-suffix, all isolated forms which prove the existence of a present stem in *ā* have been ranged here, too, assuming that the preterite-subjunctive also ended in *-ā* and the present therefore was a zero-present. If there is a difference in root grade, it is the present that has *ä*-grade in the root whereas the preterite-subjunctive

has $\bar{a}$ -grade. This pattern is reminiscent of that of some verbs with primary presents discussed under 2.6.8 (p 107).

PRESENT	PRETERITE-SUBJUNCTIVE	PRT.PTC.	
{pāywā-}	: ($\bar{a}$ -grade)	–	cf <i>pāpey(u)</i> ‘blow’
{plānkā-}	–	–	<i>pāplānku</i> ‘pinch’
{māntā-}	{māntā-}	<i>māmāntu</i>	‘hurt’
{rāpā-}	{rāpā-}	<i>rārpu</i>	‘dig’
{rāpā-?}	{rāpā-?}	–	‘make music’
{pālā-}	{pālā-}	<i>pāplu</i>	‘praise’
{tākwā-}	($\bar{a}$ -grade) {tākwā-}	–	‘?’
{wāypā-}	–	<i>wipo</i>	‘be humid’
{rāwā-}	?	–	‘tear out’
{škāytā-}	–	–	‘seem’?

For the verbs ‘hurt’ and ‘dig’ the gradation pattern is attested directly and for ‘blow’ and ‘pinch’ it can be inferred from the preterite participle, which presupposes a prt.-subj. with $\bar{a}$ -grade. The verb for ‘make music’ is uncertain altogether: attested are a 3pl. *rpeñc* and a restored agent noun *rā(pā)ntāñ*. If these two forms are to be united in one stem pattern, they must belong here, as $\bar{a}$: $\bar{a}$ gradation in $\bar{a}|\bar{a}$ -roots is found only in this group of verbs. *pālā-* must be mentioned here because of its gradation pattern, but it has a difference between *ll* in the present versus *l* in the preterite-subjunctive, too, which points to a *nā*-suffix in the present (cf 2.5.8, p 90). {tākwā-} and {wāypā-} are certainly presents because of the infinitives *tākwātsi* and *wipāsi*; the vn *tākwālune* proves the non-grading pattern for the first verb, and it is suggested for the second by the prt.ptc. *wipo*. {rāwā-} is also certain because of an inf. *rwātsi*, but since no other stems are attested, its pattern is further unclear. *škītā(ntrā)* A58a6, apparently with a stem {škāytā-}, is tentatively analysed as a present and would then belong here, but it is a restored form of unknown meaning.

{ $\bar{a}$ } with *a*-grade in the root

Zero-derived or internally derived presents of this class have a root-final vowel *a* and they are traditionally seen as presents with a suffix *a*, but this analysis is clearly based on Tocharian B parallels. Within Tocharian A, the only parallelism with *a*-presents is that both are middle only. They also agree in having a preterite-subjunctive in $\bar{a}$, but this is so common that it can hardly be considered important enough. Synchronically, the only difference between the present and the preterite-subjunctive is a difference in root grade: the present has *a*-grade, the preterite-subjunctive $\bar{a}$ -grade. Since some verbs with $\bar{a}|\bar{a}$ -roots have a preterite-subjunctive in $\bar{a}$, it is the easiest to analyse all stems with final *-a* as having underlying $\bar{a}$ weakened to *a* after a

heavy vowel.⁷¹ Some examples of the commoner type with an $\bar{a}|\bar{a}$ -preterite-subjunctive:

PRESENT		PRESENT		PRETERITE-SUBJUNCTIVE
{asā-}	>	{asa-}	:	{āsā-} > {āsa-} ‘dry’
{plantā-}		{planta-}		{plāntā-} {plānta-} ‘be pleased’
{sakā-}		{saka-}		{sākā-} {sāka-} ‘stay behind’
{t ^s arwā-}		{t ^s arwa-}		{t ^s ār wā-} {t ^s ārwa-} ‘be comforted’

A small group has initial palatalisation in the present. It is in this group that we find gradation in the preterite-subjunctive:

PRESENT		PRETERITE-SUBJUNCTIVE
{śamā-}	:	{t ^s āmā-} ⁷² ‘grow’
{śalcā-}		?
{śalpā-}		{t ^s a/ālpā-} ‘be redeemed’

{śalcā-} is isolated, but structurally it fits well to the other verbs with initial ś-, so that the root is probably to be set up as *t^sāltā-* or *t^sāltā-*. One verb has a pattern that is completely isolated, but it is without doubt best compared with the three verbs above because it also has initial *t^s* that is palatalised to ś in the present: *t^sārtā-* ‘weep’ with a preterite {t^sārtā-} and a present {śertā-}, possibly {śertā-}. On the basis of {śamā-} and {śalpā-}, we would rather expect {śartā-}; if the uncertain {śalcā-} is to be compared, perhaps {śarcā-}. However, the existence of forms with unpalatalised root final {śertā-} is absolutely certain, and even with Winter’s restoration *śe(rct)ār* for the 2sg.mid. in A79b1 (1991a: 47), the *c* remains hypothetical.

The present of *spārtwā-* ‘turn’ is difficult to analyse, but it may belong here. Although *sparcwš-ām* A253b1 seems to point to a *’ā/a*-suffix, i.e. {sparcw-š-n}, its well-attested middle counterpart *sparcwatrā* suggests an *ā*-suffix weakened to *a*. The active form suggests appurtenance to the type of *pānw-* ‘stretch’, whereas the middle form points to {śamā-}, {śalcā-}, etc; the prt.-sbj. {spārtwā-} would fit both.

2.7 STEM DERIVATION IN TOCHARIAN B

For the general principles behind the stem analysis given here see the introduction to the section on Tocharian A, 2.6 (p 94). There are two points to be noted. The first is that for Tocharian A I have analysed preterite-subjunctives as primary preterites

⁷¹ It is important to note that if the root final is analysed as *a* instead, this would isolate the preterite-subjunctive since we find *a* nowhere else; if only the present is analysed as having *a*, but the preterite-subjunctive as having $\bar{a}$, this would introduce a contrast that is not only invisible, but also superfluous, since this does not account for the distinctive root grade.

⁷² No forms that should have *a*-grade are attested.

with a zero-derived subjunctive because more subjunctives are derived from preterites than the other way round. For Tocharian B, I follow exactly the same method. However, in this language subjunctives are only rarely derived from preterites, whereas preterites derived from subjunctives are quite common. Therefore, identical subjunctives and preterites are analysed as primary subjunctives with zero-derived preterites, and the combination is called “subjunctive-preterite”. The second point is that like for Tocharian A, I analyse the traditional class 3 *s*-preterite as a root preterite to *x|Ø*-roots, with a *sa*-suffix as an inflectional peculiarity (see 2.5.1, p 55). This has the advantage that the number of subjunctive-preterites increases drastically, since the combination of *s*-preterites and *x|Ø*-root subjunctives is rather frequent: after all, the most frequent forms of this preterite have no *sa*-suffix, nor has the related preterite participle. In addition, the gradation variants are the same (even though their distribution is different).

2.7.1 OVERVIEW

The symbols and conventions in the scheme below are the same as those for Tocharian A, see 2.6.1 (p 95).

<i>primary preterites</i>		TEB		TEB
		↗	' <i>ə</i> / <i>e</i> -PRS	2
		↗	ʃ' <i>ə</i> / <i>se</i> -PRS	8
		↗	ʃʃ' <i>ə</i> / <i>ske</i> -PRS	9
<i>x Ø-√-PRT</i>	3	↘	<i>x Ø-√-SBJ</i>	1
		↗	ʃ' <i>ə</i> / <i>se</i> -PRS	8
		↗	ʃʃ' <i>ə</i> / <i>ske</i> -PRS	9
<i>x Ø-√-PRT</i>	3	↘	' <i>ə</i> / <i>e</i> -SBJ	2
		↗	ʃ' <i>ə</i> / <i>se</i> -PRS	8
		↗	<i>nə</i> ʃʃ' <i>ə</i> / <i>ske</i> -PRS	10
<i>x Ø-√-PRT</i>	3	↘	Ø/ <i>e</i> -SBJ	3
<i>primary subjunctives</i>		TEB		TEB
		↗	<i>a a-√-PRS</i>	5
<i>a a-√-SBJ</i>	5	↘	<i>a a-√-PRT</i>	1
			(= <i>lyāka</i> -type)	
		↗	<i>e</i> -PRS	3
		↗	<i>o</i> -PRS	4
		↗	<i>na</i> -PRS	6
		↗	⟨ <i>n</i> ⟩-PRS	7
		↗	ʃʃ' <i>ə</i> / <i>ske</i> -PRS	9
<i>x a-√-SBJ</i>	5	↘	<i>x a-√-PRT</i>	1
<i>primary presents</i>		TEB		TEB
' <i>ə</i> / <i>e</i> -PRS	2	⇒	' <i>ə</i> / <i>e</i> -SBJ	2
(including <i>ññə</i> / <i>e</i> -presents)			→	<i>a</i> -PRT
				1
<i>no primary stem</i>		TEB		TEB
		↗	ʃʃ' <i>ə</i> / <i>ske</i> -PRS	9
root		↘	' <i>ə</i> / <i>e</i> -SBJ	2
		↘	' <i>ə</i> / <i>y</i> -SBJ	4
		↗	ʃʃ' <i>ə</i> / <i>ske</i> -PRS	9
root		↘	<i>caus. PRT</i>	2
		↗	' <i>ə</i> / <i>e</i> -PRS	2
		↗	ʃ' <i>ə</i> / <i>se</i> -PRS	8
		↗	ʃʃ' <i>ə</i> / <i>ske</i> -PRS	9
		↗	<i>ññə</i> / <i>e</i> -PRS	12
root		↘	<i>a</i> -SBJ	5
			⇒	<i>a</i> -PRT
				1

2.7.2 PRIMARY PRETERITES

By definition, only those preterites are primary from which the subjunctive, or in some cases the present, is derived. The following subjunctives are derived from the preterite: $\{\text{'ə}/\text{e}\}$, $\{\text{Ø}/\text{e}\}$, $\{\text{na}\}$.

$\{\text{'ə}/\text{e}\}$

The $\text{'ə}/\text{e}$ -suffix derives some subjunctives from *s*-preterites. The following verbs have this pattern:

PRETERITE		SUBJUNCTIVE
$\{\text{treyk-Ø}/\text{sa-}\}$	→	$\{\text{trəy}^{\text{śə}}/\text{ke-}\}$ ‘err’
$\{\text{p}^{\text{e}}/\text{ǎlk-Ø}/\text{sa-}\}$		$\{\text{pəl}^{\text{śə}}/\text{ke-}\}$ ‘burn’
$\{\text{plenk-Ø}/\text{sa-}\}$		$\{\text{plən}^{\text{cə}}/\text{ke-}\}$ ‘sell’
$\{\text{Í}^{\text{e}}/\text{ǎwk-Ø}/\text{sa-}\}$		$\{\text{Íəw}^{\text{śə}}/\text{ke-}\}$ ‘light up’
$\{\text{şerp-Ø}/\text{sa-}\}$		$\{\text{şərp}^{\text{ə}}/\text{e-}\}$ ‘point out’

Three more verbs most likely belong to the same group, but their preterite is not attested (subjunctive stems cited): $\{\text{wəy}^{\text{śə}}/\text{ke-}\}$ ‘keep away from’, $\{\text{şpər}^{\text{śə}}/\text{ke-}\}$ ‘disappear’, $\{\text{tsər}^{\text{śə}}/\text{ke-}\}$ ‘burn’. It is striking that 7 out of 8 have a root ending in *-k* and one has another stop, *-p*.

$\{\text{Ø}/\text{e}\}$

The $\text{Ø}/\text{e}$ -suffix also derives subjunctives from *s*-preterites. These *s*-preterites are all characterised by a non-grading preterite stem with *e*-grade, while the roots themselves are gradable; that is, these preterites have *e*-grade in the middle, where otherwise *ə*-grade is regular. The following verbs have this pattern:

PRETERITE		SUBJUNCTIVE
$\{\text{tem-Ø}/\text{sa-}\}$	→	$\{\text{cəm}^{\text{Ø}}/\text{e-}\}$ ‘be born’
$\{\text{ken-Ø}/\text{sa-}\}$ ⁷³		$\{\text{kən}^{\text{Ø}}/\text{e-}\}$ ‘come about’
$\{\text{kes-Ø}/\text{sa-}\}$		$\{\text{kəs}^{\text{Ø}}/\text{e-}\}$ ‘go out’
$\{\text{nek-Ø}/\text{sa-}\}$		$\{\text{nək}^{\text{Ø}}/\text{e-}\}$ ‘perish’
$\{\text{tsək-Ø}/\text{sa-}\}$		$\{\text{tsək}^{\text{Ø}}/\text{e-}\}$ ‘burn’

Of the verb ‘boil, ripen’ with the subjunctive $\{\text{pək}^{\text{Ø}}/\text{e-}\}$ no preterite is attested, but it certainly follows the same pattern.

⁷³ The preterite of *kən-* is probably attested in 3sg. *kentsa* B522b7, where ‘arose; came to be’ gives a much better translation than ‘on the earth’ of Carling (2000: 79). A further instance might be *kemtsa* THT1300a4, while the bulk of the other attestations are rather perl.sg. forms of *kem* ‘earth’ (e.g. B133b5, B304b5, B345b2, B370b1, IT127b1, IT127b2, IT169a1).

{na}

The *na*-suffix is problematic because most *na*-subjunctives have something irregular.

PRETERITE		SUBJUNCTIVE	
{kəryá-}	→	{kərná-}	‘deal’
{kəlpá-}		{kəllá-}	‘obtain’
{pəká-}		{pəkná-}	‘intend’

The preterites of the verbs ‘be careless’, sbj. {yəkná-}, and ‘oppress’, sbj. {mállá-}, are not attested, but the preterite participle of the first proves the same pattern, and if *m(a)mālo(s)* B159b6 is the preterite participle of the second, it fits the pattern, too. The *na*-subjunctives are a difficult category because in {mállá-}, and {kəllá-} we find gemination of the *l* of the root, which is perhaps rather to be analysed as a morphological feature itself (if not a morphological irregularity, see 2.5.8, p 90), and in {kərná-} the final *y* of the root has disappeared; the only “real” *na*-subjunctives are {pəkná-} and {yəkná-}.

2.7.3 DERIVED PRETERITES

Derived preterites are relatively easily described: they are formed with the suffix {a} from subjunctives or from the root; if the subjunctive has a grading suffix, it is formed to the *a*-variant of it. These secondary preterites fall into two basic categories: those derived from a subjunctive with a grading suffix and those derived from ‘*ay*’-subjunctives. A large number of the subjunctives with a grading suffix are present-subjunctives, but since there are quite a number with a derived present, too, it is clear that the preterite is derived from the subjunctive, not from the present.

The only exception is the preterite of ‘do’, {yaməşş-a-}, which is clearly derived from the present {yaməşşə/ske-} instead of the subjunctive {yam-}. {yaməşş-a-} is further peculiar in having a prt.ptc. *yāmu*, *yāmoş* and an ipv. {-yam⁰/sa-}, where ***yamaşşu*, *yamaşşoş* and **{-yaməşş-a-} would have been regular.

Preterites derived from subjunctives with a grading suffix are numerous and some examples will suffice:

	SUBJUNCTIVE		PRETERITE	
(only) sbj.	{ak ^{sə} /se-}	→	{akş-á-}	‘announce’
	{weñ ^a /e-}		{weñ-á-, wñ-á-}	‘say’
	{ya ^{sə} /ske-}		{yaşş-á-}	‘beg’
prs.-sbj.	{ka ^{tkē} /ccə-}	→	{kacc-á-}	‘be glad’
	{klēw ^{sə} /se-}		{klēwş-á-}	‘hear’
	{k ^{wə} ypēññ ^a /e-}		{k ^{wə} ypéññ-a-}	‘be ashamed’
	{yátə ^{sə} /ske-}		{yátəşş-a-}	‘tame’

Preterites derived from 'ay-subjunctives are not very well attested, just like the 'ay-subjunctives themselves. Nevertheless, the general pattern seems to be clear. Four preterites are attested:

SUBJUNCTIVE		PRETERITE	
{akláy-}	→	{akláy-a-}	'learn'
{kəlpáy-}		{kəlpáy-a-}	'steal'
{laĺáy-}		{laĺáy-a-}	'be tired'
{wəşáy-}		{wəşáy-a-}	'dwell'

Besides, we find the subjunctives {awkşáy-} of 'grow', {kərsáy-} of 'chop', and {şeráy-} of 'hunt', which are very likely to match the four verbs above completely, although their preterites are unfortunately not attested.

One substantial category of preterites, that of the "strong causative preterites", is not derived from the subjunctive, but from the root instead. Since the suffix found in the present and subjunctive, {^{ssə}/ske}, is more salient than the *a*-suffix of the preterite, one could be tempted to derive the present (-subjunctive) from the preterite rather than the latter from the (present-) subjunctive. A good argument to actually do so is the existence of present-subjunctive forms with a medial *a* (see 2.7.9, p 133). However, the most frequent pattern clearly has no such medial *a* and since there is no (synchronic) rule to let it drop, we have to derive both the preterite and the present-subjunctive from the root. This preterite is formed with the preterite suffix *a*, it has *a*-grade in the root, and initial palatalisation. The palatalisation patterns of this class are peculiar as they include several palatalisation products that are attested only here (see especially 2.5.4, p 72). Some examples are:

CAUSATIVE PRETERITE		ROOT		PRESENT-SBJ.	
{kyána-}	←	kən-	cf	{kónə ^{ssə} /ske-}	'fulfill'
{cála-}		təl-		{tələ ^{ssə} /ske-}	'lift'
{ñárka-}		nark-		{nórkə ^{ssə} /ske-}	'keep away'

2.7.4 ZERO PRETERITES

"Zero preterites" are preterites that have the same stem as the corresponding primary subjunctive. Zero preterites divide into four types: 1) the *s*-preterite, which matches the *x|Ø*-root subjunctive, whereas the other three are *x|a*-root preterites, which may have 2) initial palatalisation in the active if they combine with grading subjunctives, 3) initial palatalisation and *a*-grade in the root, or 4) a stable root grade (*a*, *a* or *o*).

sub 1) The *s*-preterite to gradable roots generally has *e*-grade in the active and *ə*-grade in the middle, and its corresponding *x|Ø*-root subjunctives have *e*-grade in the active singular and *ə*-grade in the active plural and the middle. Some examples are:

SUBJUNCTIVE		PRETERITE	
{awn-}	≈	{awn ^Ø /sa-}	‘hit; start’
{k ^e /əw-}		{kew- ^Ø /sa-}	‘pour’
{t ^e /ək-}		{tek- ^Ø /sa-}	‘touch’
{p ^{re} /rək-}		{pr ^e /ək- ^Ø /sa-}	‘ask’

A different full grade vowel but essentially the same gradation pattern is found with subj. {y^o/əp-}, prt. {yop-^Ø/sa-} of ‘enter’.

sub 2) Initial palatalisation in the active singular of the preterite is only found in gradable roots. All subjunctives attested to this pattern have gradation, *a* : *ə* (before *a*): *a* in the active singular and *ə* in the active plural and the middle. Some examples:

SUBJUNCTIVE		PRETERITE	
{k ^á /əta-}	≈	{š/kəta-}	‘strew’
{t ^á /ərka-}		{c/tərka-}	‘let go’
{la/əwa-}		{l ^á wá-} ⁷⁴	‘sit down’
{st ^á /əma-}		{šcəma-} ⁷⁴	‘stand’

sub 3) Initial palatalisation in the preterite combined with *a*-grade is found only with a handful of verbs:

PRESENT-SUBJUNCTIVE		PRETERITE	
prs.-subj.	{pəlwá-} ≈ {pláwá-}	{pláwá-}	‘complain’
	{šəwá-}	{šawá-} ⁷⁵	‘eat’
prs.-subj. ~ subj.	{ləká-}	{laká-}	‘see’

To a fourth preterite of this kind, {lawá-} of ‘rub’, no subjunctive or present-subjunctive is attested, but it displays exactly the same gradation pattern and probably belongs here (cf the preterite participle in abs. *lyelyuwormem* with the characteristic *ə*-grade in the root, and no root-final *a*; see 2.9.2, p 148).

sub 4) Zero preterites to *a*/*a*-roots are extremely frequent, with around 120 instances. Here are some representative examples:

SUBJUNCTIVE		PRETERITE	
{káwta-}	≈	{kawta-}	‘chop’
{kláya-}		{klaya-}	‘fall’
{plánta-}		{plantá-}	‘be pleased’
{wáya-}		{wayá-}	‘lead’

⁷⁴ No middle attested.

⁷⁵ In this verb the palatalisation is not visible, of course. When I studied the variation between 3sg.prt. *šāwa* and *šuwa*, I had overlooked the parallelism to ‘see’ and ‘complain’ (Peyrot 2008a: 145-146). However, the explanation of the late stem form {šəwá-} given there is still valid.

SUBJUNCTIVE		PRETERITE	
{wáska-}		{waská-}	‘move’
{wárpa-}		{wərpá-}	‘enjoy’
{skára-}		{skará-}	‘scold’
{spərká-}	=	{spərká-}	‘disappear’
{tʰəmə-}		{tʰəmə-}	‘grow’

In the majority of cases, we find a systematic difference in accent: the subjunctive has initial accent and the preterite has suffix accent. As described in 2.5.7 (p 85), most subjunctives have initial accent, except for those with only *a*-vocalism in the root. Thus, the zero preterites to the grading subjunctives under 2) and the subjunctives with *a*-grade under 4) are no zero derivations in the strict sense because the accent shifts.

One could be tempted to extend the general rule for preterite derivation, namely *a*-suffixing, to include these zero preterites, too: a *sbj.* {kláya-} could perhaps move its accent because another *a* is suffixed, i.e. {kláya-a-} > {klayá-}. Such an analysis is problematic because there is no independent evidence for *a.a* becoming *a*, and we do not see the accent move in other derived preterites, like {kəlpáy-} → {kəlpáy-a-} or {yátəʂʂə/ske-} → {yátəʂʂə-a-}. A further problem is that this rule fails to capture a very similar accent movement in the *s*-preterite: cf {tʰé/ʂk-} → {tek-^o/sa-} with {tek-’} or {pré/ʂk-} → {pre/ʂk-^o/sa-} with {prek-’}. Therefore, I will just treat the subjunctive and preterite stems as identical, except for a difference in accent that is inexplicable in synchronic terms.

Since subjunctives with stable *a*-vocalism have suffix accent, we find exact matches with the preterite under 4).⁷⁶

One verb has a unique pattern, ‘come’. It forms a preterite and a subjunctive with the same suffix, but with different root grades: *sbj.* {śə(n)mʷ/e-}, *prt.* {śemə-, kəmé-}, *prt.mid.* {kəmə(ə)sa-}.

2.7.5 PRIMARY SUBJUNCTIVES

The largest group of subjunctives is formed by primary subjunctives, i.e. subjunctives of which the present and the preterite are derived (the latter mostly through zero derivation, see 2.7.4, p 122). There are four main types, according to the four root types distinguished in 2.4 (p 44): to 1) *a|Ø*-roots, 2) *a|Ø*-roots, 3) *a|a*-roots, and 4) *a|a*-roots.

sub 1) Primary subjunctives to *a|Ø*-roots have *e*-grade in the active singular and *a*-grade in the other forms, and they seem to have initial accent, as far as can be determined. They correspond to *s*-preterites (with gradation). Some examples:

⁷⁶ In type 2), the accent is not distinctive either, but there the preterite has a distinctive root grade *a*.

SUBJUNCTIVE		PRETERITE	
{t ^é /ǎk-}	≈	{tek- ^Ø /sa-}	‘touch’
{pr ^é /ǎk-}		{pr ^é /ǎk- ^Ø /sa-}	‘ask’
{p ^{lé} /ǎw-}		{p ^{lé} w- ^Ø /sa-}	‘float’

One verb has *o*-grade where we would expect *e*-grade: sbj. {y^o/ǎp-} and prt. {yop-^Ø/sa-} of ‘enter’.

sub 2) Primary subjunctives to *a|Ø*-roots also seem to have initial accent and they correspond to *s*-preterites without gradation, e.g.:

SUBJUNCTIVE		PRETERITE	
{awn-}	≈	{awn- ^Ø /sa-}	‘hit; start’
{plak-}		{plak- ^Ø /sa-}	‘agree’
{sayn-}		{sayn- ^Ø /sa-}	‘rest on’

The verb ‘do’ has a different preterite, irregularly derived from the present: sbj. {yam-}, prt. {yamǎšš-a-}; however, its preterite participle *yāmu*, -*oš* is clearly not derived from {yamǎšš-a-}, whereas it would fit well to an *s*-preterite **{yam-^Ø/sa-} (see 2.9.2, p 150). An exception could be sbj. {klāyn-} of ‘be necessary’ if it has a gradable prt. {kleyn-^Ø/sa-}. The subjunctive of ‘go’, {y(ǎn)-}, is not grading either, but the stem pattern of this verb is difficult to compare because it has only a prs.-sbj. and an ipf. stem (see 2.5.5, p 78). With two verbs we find *o*-vocalism in the root, which could point to a variation of the pattern of the gradable subjunctives, but the number of *o*-grade forms attested is too small to be certain: sbj. {o/ar-} and prt. {o/ar-^Ø/sa-} of ‘abandon’; sbj. {k^o/aw-} and prt. {kaw-^Ø/sa-, kow-^Ø/sa-} of ‘kill’.

sub 3) Primary subjunctives to *ǎ|a*-roots have *a*-grade in the active singular and *ǎ*-grade in the other forms, as well as initial accent. They correspond to *ǎ|a*-root preterites with initial palatalisation in the active (if possible), e.g.:

SUBJUNCTIVE		PRETERITE	
{k ^á /ǎla-}	≈	{š ^á /kǎlá-}	‘bring’
{t ^á /ǎrka-}		{c ^á /tǎrká-}	‘let go’
{m ^á /ǎrsa-}		{mǎrsá-}	‘forget’
{s ^á /ǎlka-}		{sǎlká-} ⁷⁷	‘pull out’
{t ^á /ǎnka-}		{t ^á ǎnká-}	‘rise’

A very large group of subjunctives with *ǎ*-vocalism in the root could display the same gradation formation pattern, while the relevant forms that would have *a*-grade are

⁷⁷ No active forms attested.

lacking, mostly – but not always – for structural reasons, such as with middle only subjunctives.

SUBJUNCTIVE		PRETERITE	
{kárka-}	≈	{ ^ś /kærká-}	‘rob’
{krämpá-}	=	{krämpá-}	‘be disturbed’
{mānká-}	=	{mānká-}	‘be inferior’
{spærká-}	=	{spærká-}	‘disappear’
{t ^{sá} /ānka-}	≈	{t ^s ānká-}	‘rise’

However, some of these do not display the expected palatalisation in the corresponding active preterite forms: sbj. and prt. {k^wəlā-} of ‘fail’, sbj. and prt. {plānká-} of ‘be sold’, sbj. and prt. {sætka-} of ‘spread’.

sub 4) Primary subjunctives of *a|a*-roots have a systematic difference in accent, the subjunctive having initial and the preterite suffix accent. Otherwise the stems are identical and unchangeable, e.g.:

SUBJUNCTIVE		PRETERITE	
{kárpa-}	≈	{karpá-}	‘descend’
{táka-}		{taká-}	‘be’
{páyka-}		{payká-}	‘paint; write’
{pála-}		{palá-}	‘praise’
{wláwa-}		{wlawá-}	‘control oneself’

2.7.6 DERIVED SUBJUNCTIVES

A minor group of subjunctives is derived from the preterite. There are four suffixes: {’ə/e}, {’ə/e}, {na}. For a discussion and examples, see 2.7.2 (p 120).

An even smaller group is not derived from the preterite, but from the root, whereas the preterites to these verbs can best be seen as derived from the subjunctive. The suffixes for this type of derivation are {’ə/e}, {’əy}, {a}.

{’ə/e}

The ’ə/e-subjunctives that are not derived from the preterite follow one pattern: they all have a ^{ssə}/ske-present next to them that seems to be formed from the root because neither the ə-variant nor the e-variant of the subjunctive stem can have served as a base:

SUBJUNCTIVE		PRESENT	
{ak ^{sə} /se-}	:	{aks ^{ssə} /ske-}	‘announce’
{a ^{sə} /se-}		{ás ^{sə} /ske-}	‘fetch’
{ya ^{ssə} /ske-}		{yask ^{ssə} /ske-}	‘beg’

In *weñ-*, the verb for ‘say’, we cannot decide whether the present is formed to the root or to the subjunctive because the root-final $\tilde{n}/e$ is suppressed completely: subj. {weñ^ə/*e*-} : prs. {we(ñ)^{ssə}/*ske*-}. The verb ‘come’ seems to fit the same pattern, except for the additional *n* in the root of the present. If the subjunctive stem with *n* in the root is taken as the basic one, the set subj. {śa(n)m^ə/*e*-} : prs. {kənmá^{ssə}/*ske*-} is parallel to the three verbs above. However, the *n* is certainly not part of the root proper, as it is not found in the preterite and the preterite participle. Consequently, ‘come’ must owe its root-*n* in the subjunctive to exactly this pattern, but originally followed another one. Synchronically, therefore, the *n*-subjunctives belong here, while *n*-less forms belong under 2.7.9 (p 135; cf Peyrot 2008a: 147-148).

{’əy}

’əy-subjunctives follow one pattern: they all pattern with ^{ssə}/*ske*-presents that clearly lack the subjunctive suffix, so that both must be derived from the root:

SUBJUNCTIVE		PRESENT	
{akláy-}	:	{aklós ^{ssə} / <i>ske</i> -}	‘learn’
{awksáy-}	:	{awksə ^{ssə} / <i>ske</i> -}	‘grow’
{kəlpáy-}	:	{kəlpós ^{ssə} / <i>ske</i> -}	‘steal’
{laláy-}	:	{lalós ^{ssə} / <i>ske</i> -}	‘be tired’
{wəşáy-}	:	{wəşós ^{ssə} / <i>ske</i> -}	‘dwell’

To the subjunctives {kərsáy-} ‘chop’ and {śerəy-} ‘hunt’ no presents are attested, but otherwise they conform to the pattern.⁷⁸

{a}

a-subjunctives are formed to the root of some verbs with ^{’ə}/*e*-, ^{sə}/*se*-, ^{ssə}/*ske*-, or $\tilde{n}\tilde{n}/e$ -presents. We find:

SUBJUNCTIVE		PRESENT	
{p ^á /śnna-}	:	^{’ə} / <i>e</i> -prs.	{peññ ^ə / <i>e</i> -} ‘stretch’
{tráska-}	:		{tre ^{ssə} / <i>ske</i> -} ‘chew’
{yəwka-}	:	^{sə} / <i>se</i> -prs.	{yəwk ^{sə} / <i>se</i> -} ‘conquer’
{lápwa-}	:		{ləwp ^{sə} / <i>se</i> -} ‘smear’
{yənmá-}	:	^{ssə} / <i>ske</i> -prs.	{yənmá ^{ssə} / <i>ske</i> -} ‘reach’
{sámpa-}	:		{sompós ^{ssə} / <i>ske</i> -} ‘take away’

⁷⁸ It must be admitted that *kərsáy-* could also be an opt. to a ^{’ə}/*e*-present (Winter 1977: 140).

SUBJUNCTIVE		PRESENT	
(<i>a</i> -grade)	{náytta-}	: $\tilde{n}\tilde{n}^{\partial}/e$ -prs.	{nəyttáññ [∂] /e-} ‘break down’
	{mánta-}		{məntáññ [∂] /e-} ‘destroy’
	{máywa-}		{məywəññ [∂] /e-} ‘tremble’
	{wáska-}		{wəskáññ [∂] /e-} ⁷⁹ ‘move’
	{t ^s áyka-}		{t ^s əykáññ [∂] /e-} ‘form’
(grading)	{k ^a /əská-}	: $\tilde{n}\tilde{n}^{\partial}/e$ -prs.	{kəskəññ [∂] /e-} ‘scatter’
	{klánt ^s a-} ⁸⁰		{klənt ^s əññ [∂] /e-} ‘sleep’

If the subj. {rás^sa-} ‘tear out’ has a regular present formation, it belongs to the group of ∂/e -presents above. However, there are problems with a present stem {rə^{sse}/sə^s-} and perhaps an irregular stem {rə^sšəy-} accounts best for the forms attested. To the present {rəsəññ[∂]/e-} ‘stretch’ no subjunctive is attested, but otherwise it fits the above pattern, cf the preterite participle in abs. *rsormem* (since no secure example of non-grading ∂ in the subjunctive root is attested, the subjunctive may have been {r^á/əsa-}).

2.7.7 ZERO SUBJUNCTIVES

A large number of subjunctives seem to be derived from the present through zero derivation: the subjunctive and present stems are identical, hence “present-subjunctives”, but the suffixes otherwise derive only presents, so that the presents are likely to be primary. There is a very large group with the $\tilde{s}\tilde{s}^{\partial}/ske$ -suffix, among which many causative present-subjunctives, and two smaller groups with ∂/e - and $\tilde{n}\tilde{n}^{\partial}/e$ -suffixes. Yet a fourth group of present-subjunctives could theoretically be analysed as primary subjunctives with zero-derived presents because their suffix {a} does not otherwise form presents. However, such a derivation path is not found otherwise and historically these present-subjunctives are just presents that end in *-a* (see 4.4.3, p 393, and 4.4.5, p 395), so that they are better analysed as regular primary presents with zero-derived subjunctives.

{ $\tilde{s}\tilde{s}^{\partial}/ske$ }

The $\tilde{s}\tilde{s}^{\partial}/ske$ -present-subjunctives are divided into two groups: causatives and non-causatives. A causative $\tilde{s}\tilde{s}^{\partial}/ske$ -present-subjunctive may be recognised through the existence of a non-causative verb next to it, but it is also characterised by its initial accent, which allows us to set up “causatives only”. Another difference is that causative $\tilde{s}\tilde{s}^{\partial}/ske$ -present-subjunctives generally have no *a* directly before the $\tilde{s}\tilde{s}^{\partial}/ske$ -suffix, whereas non-causatives may have such an *a* (see Malzahn forth.a and 4.4.6, p 398). Some examples:

⁷⁹ On present forms with the stem {waskáññ[∂]/e-}, see Peyrot (2008a: 154-155).

⁸⁰ Possible *a*-grade forms are not attested.

non-causative	{alá ^{ssə} /ske-}	‘be ill’
	{satá ^{ssə} /ske-}	‘exhale’
causative	{kátka ^{ssə} /ske-}	‘please’
	{kérə ^{ssə} /ske-}	‘make laugh’
	{parákə ^{ssə} /ske-}	‘please’

{’ə/e}

The ’ə/e-present-subjunctives form a limited group:

{ana ^{ssə} /ske-}	‘breathe’	{na ^{ssə} /ske-}	‘bathe’
{ay ^{śə} /ke-}	‘know’	{pa ^{ssə} /ske-}	‘protect’
{kañm ^ə /e-}	‘play’	{yər ^{ssə} /se-}	‘revere’
{ka ^{ccə} /tke-}	‘be glad’	{lan ^{ssə} /se-}	‘carry out’
{kər ^{ssə} /ske-}	‘shoot; throw’	{lā ^{śə} /ke-}	‘lie’
{klēw ^{ssə} /se-}	‘hear’	{wəyna ^{ssə} /ske-}	‘honour’
{cəmp ^ə /e-}	‘can’	{śay ^ə /e-}	‘live’
{ñə ^{ssə} /ske-}	‘desire’	{soy ^ə /e-}	‘be saturated’

{ññ^ə/e}

The ññ^ə/e-present-subjunctives form a homogeneous group of denominative verbs, mostly – but not exclusively – denoting emotions:

emotion verbs

{añmáññ ^ə /e-}	‘love, have a wish’
{kawáññ ^ə /e-}	‘desire’
{k ^{wə} ypeññ ^ə /e-}	‘be ashamed’
{tənk ^{wə} ññ ^ə /e-}	‘love’
{pək ^{wə} ññ ^ə /e-}	‘trust’
{ykanşəññ ^ə /e-}	‘loathe’
{lareññ ^ə /e-}	‘love’
{wəynaññ ^ə /e-}	‘enjoy’
{sklokəññ ^ə /e-}	‘doubt’
{sək ^{wə} ññ ^ə /e-}	‘feel happy’

other verbs

{arccəññ ^ə /e-}	‘have to’
{celeññ ^ə /e-}	‘appear’
{tšereññ ^ə /e-}	‘cheat’

present-subjunctives in -a

Although the following present-subjunctives have a subjunctive-like structure, they are best analysed as regular primary presents with zero-derived subjunctives:

{pəlwá-}	‘complain’
{pr ^ə /ska-}	‘fear’
{ləká-}	‘see’ (present-subjunctive in the middle only)

{śawa-}	‘eat’
{yáya-}	‘lead’

2.7.8 PRIMARY PRESENTS

Primary presents are all presents from which subjunctives are derived through zero derivation; they are listed above in 2.7.7 (p 128). In addition, suppletive presents can be considered primary presents because they have no other stems beside them. We find:

{kwa-}	‘call’
{nes-}	‘be’
{a ^{śa} /ké-}	‘lead’
{kə ^ʔ /e-}	‘stand’
{pə ^ʔ /e-}	‘carry’
{śəm ^ʔ /e-}	‘sit’
{śś ^ʔ /ske-}	‘be’

{nes-} has an irregular paradigm with ^ʔ/_e-forms next to Ø-forms, so that it is difficult to classify.

2.7.9 DERIVED PRESENTS

As was stated already in 1.2 (p 15), most preterite and subjunctive stems are shorter than the corresponding present stems and many presents are derived. Consequently, the category of derived presents is rather large. We principally find the following affixes: the suffixes {^ʔ/_e}, {e}, {o}, {ś^ʔ/_{se}}, {śś^ʔ/_{ske}}, {nəśś^ʔ/_{ske}}, {ññ^ʔ/_e}, and possibly {naśś^ʔ/_{ske}}, and the infix <n>.

{^ʔ/_e}

All clear cases of derived ^ʔ/_e-presents have *e*-grade in the root and it seems that all palatalisable initials are palatalised. Not all subjunctives or preterites to this class are attested, but as far as can be seen, it corresponds to two types of subjunctives: *x*|Ø-root subjunctives and *a*-subjunctives. In the case of *x*|Ø-root subjunctives, the ^ʔ/_e-presents can be derived from the subjunctives, but in the case of the *a*-subjunctives they cannot: we have to assume that both are derived from the root.

PRESENT		SUBJUNCTIVE	
ʔ/e-prs.	{ce ^{śa} /ke-}	← Ø-sbj.	{t ^é /śk-} ‘touch’
	{cen ^{śa} /ke-}		{t ^é /śnk-} ‘check’
	{ple ^{cca} /tke-} ⁸¹		{pl ^e /śtk-} ‘emerge’
ʔ/e-prs.	{klep ^a /e-}	: a-sbj.	‘steal’
	{tre ^{śśa} /ske-}		{tráska-} ‘chew’
	{peññ ^a /e-}		{p ^á /śnna-} ‘stretch’
ʔ/e-prs.	{per ^{śa} /ke-?}	no sbj. or prt. attested	‘peer’
	{mely ^a /e-}		‘grind’
	{re ^{śśa} /ske-}		‘flow’
	{śew ^{śa} /ke-}		‘shout’

The *e*-grade of ‘shout’ is not directly attested, as we find only 3sg. *śauśäm* etc, which could theoretically also be {śaw^{śa}/ke-}, but it is the best explanation for the formation of this verb: *a*-vocalism seems to be no alternative (if it is correctly identified, the 3sg.prt. *kuśi* is particularly strong evidence, see 4.7.3, p 458).

{e}

The *e*-present corresponds to a subjunctive and a preterite in *a*. Since the subjunctive and preterite stems behave like ʔ|*a*-roots, it is attractive to analyse the present as derived from the subjunctive. It must be noted, however, that there is no parallel for a development *ae* → *e*; the assumption that the present is derived from the subjunctive is only supported by the argument of morphological simplicity. *e*-presents are formed to ʔ|*a*-roots and they are in complementary distribution to *o*-presents, which are formed to *a*|*a*-roots. Most of the verbs form a homogeneous category with ʔ-vocalism in the root, suffix accent, and middle inflexion in the present. Some examples:

PRESENT	SUBJUNCTIVE	
{mānké-}	← {mānká-}	‘be inferior’
{mārsé-}	{m ^á /śrsa-}	‘forget’
{srāwké-}	{sr ^á /śwka-}	‘die’

A small group follows a different pattern with *e*-grade in the root and initial palatalisation if possible (see also Winter 1988: 218):

⁸¹ ʔ-variants are not attested.

PRESENT		SUBJUNCTIVE	
{tʰenke-}	←	{tʰá/ʒnka-}	‘rise’
{ñewe-}		{nówa-} ⁸²	‘roar’
{léwe-}		{lʰa/əwa-}	‘send’

lyuketrä B46a7 ‘shines’ also has initial palatalisation, but *ə*-grade: the initial palatalisation probably belongs to the root in this verb (*lukatsi* Cp40b5 would be a late form).

{o}

o-presents are completely parallel to *e*-presents, except that they are formed to *a|a*-roots instead of *ə|a*-roots. In this case, the derivation from the subjunctive is easier as *ao* would very probably result in *o*, which is the actual shape of the present stem. The accent pattern of *o*-presents cannot be determined because the *o*-suffix causes *o*-affection of a preceding *a*, so that the surface accent cannot be established; *ay* and *aw*-diphthongs are not affected, but they do not show the accent effects either.

PRESENT		SUBJUNCTIVE	
{korpo-}	←	{kárpa-}	‘descend’
{klawtko-}		{kláwtka-}	‘turn away from’
{plonto-}		{plánta-}	‘be pleased’
{layto-}		{láyta-}	‘fall off’

A small group of verbs with trisyllabic roots undergoes double *o*-affection and subsequent syncope of the third *o*, so that we find:

PRESENT		SUBJUNCTIVE	
{kolok-}	←	–	‘follow’
{porok-}		{paráka-}	‘be pleased’
{wolok-}		–	‘stay’
{sonop-}		{sanápa-}	‘put ointment on’

{ʒə/se}

^{ʒə}/_{se}-presents form a rather homogeneous category: with only two exceptions, they are all derived from *s*-preterites. Consequently, they mostly correspond to *x|Ø*-root subjunctives, but not always, since next to *s*-preterites we also find some derived subjunctives (i.e. notably with the suffixes {ʔ/e} and {Ø/e}). In *ə|Ø*-roots, the regular root grade is *ə*, but we find *e* in three cases, too. Initial palatalisation seems to be

⁸² Because of the initial accent, I expect gradation in this stem, but it is not attested (see 2.5.7, p 85).

secondary in some forms of *lāyk*- ‘wash’; otherwise, initials are not palatalised, cf especially prs. {*lāwk*^{ssə}/*se*-} of ‘light up’ vs subj. {*lāw*^{ssə}/*ke*-}, prt. {*l̥e*/*əwk*-*Ø*/*sa*-} and prt.ptc. *lyelyuku*, -*oš*. In *šərp*- ‘point out’, palatalised *š*- has spread over the whole verb (see 2.5.4, p 73).

	^{ssə} / <i>se</i> -PRESENT			PRETERITE	
<i>a</i> <i>Ø</i> -root	{ <i>nak</i> ^{ssə} / <i>se</i> -}	←	<i>s</i> -prt.	{ <i>nak</i> - <i>Ø</i> / <i>sa</i> -}	‘rebuke’
	{ <i>er</i> ^{ssə} / <i>se</i> -}			{ <i>er</i> - <i>Ø</i> / <i>sa</i> -}	‘evoke’
<i>ə</i> -grade	{ <i>nək</i> ^{ssə} / <i>sé</i> -}			{ <i>nek</i> - <i>Ø</i> / <i>sa</i> -}	‘destroy’
	{ <i>t̥ək</i> ^{ssə} / <i>se</i> -}			{ <i>t̥ek</i> - <i>Ø</i> / <i>sa</i> -}	‘burn’
	{ <i>t̥əm</i> ^{ssə} / <i>se</i> -}			{ <i>t̥em</i> - <i>Ø</i> / <i>sa</i> -}	‘let go’
<i>e</i> -grade	{ <i>ke</i> (<i>s</i>) ^{ssə} / <i>se</i> -}			{ <i>kes</i> - <i>Ø</i> / <i>sa</i> -}	‘extinguish’
	{ <i>prek</i> ^{ssə} / <i>se</i> -}			{ <i>pr̥e</i> / <i>ək</i> - <i>Ø</i> / <i>sa</i> -}	‘ask’
	{ <i>yel</i> ^{ssə} / <i>se</i> -}			–	‘examine (?)’
<i>ə</i> -grade	{ <i>yāwk</i> ^{ssə} / <i>se</i> -}	:	<i>a</i> -prt.	{ <i>yāwk</i> - <i>á</i> -}	‘conquer’
	{ <i>lāwp</i> ^{ssə} / <i>se</i> -}			{ <i>lāwp</i> - <i>á</i> -}	‘smear’

{*ššə*/*ske*}

The ^{ssə}/*ske*-suffix is the most common present suffix: it derives presents from subjunctives, from preterites, and directly from the root. Its patterning is hard to describe: there are some regular patterns, but also many isolated cases. At least the following ^{ssə}/*ske*-presents are derived from subjunctives in *a* ({*yānmá*-} is a derived subjunctive – the others are primary):

^{ssə} / <i>ske</i> -PRESENT		SUBJUNCTIVE	
{ <i>ák</i> <i>sa</i> ^{ssə} / <i>ske</i> -}	←	{ <i>ák</i> <i>sa</i> -}	‘wake up’
{ <i>mlāw</i> <i>tā</i> ^{ssə} / <i>ske</i> -}		{ <i>mlāw</i> <i>tá</i> -}	‘rise’ (?)
{ <i>yānmá</i> ^{ssə} / <i>ske</i> -}		{ <i>yānmá</i> -}	‘obtain’
{ <i>wātká</i> ^{ssə} / <i>ske</i> -}		{ <i>wātká</i> -}	‘decide’

The following ^{ssə}/*ske*-presents are derived from subjunctives in *na* (see 2.7.2, p 121):

^{ssə} / <i>ske</i> -PRESENT		<i>na</i> -SUBJUNCTIVE	
{ <i>kār</i> <i>ná</i> ^{ssə} / <i>ske</i> -}	←	{ <i>kār</i> <i>ná</i> -}	‘deal’
{ <i>pāk</i> <i>ná</i> ^{ssə} / <i>ske</i> -}		{ <i>pāk</i> <i>ná</i> -}	‘intend’
{ <i>māllá</i> ^{ssə} / <i>ske</i> -}		{ <i>māllá</i> -}	‘oppress’
{ <i>yāk</i> <i>ná</i> ^{ssə} / <i>ske</i> -}		{ <i>yāk</i> <i>ná</i> -}	‘be careless’

The isolated present {*tār**rā*^{ssə}/*ske*-} of ‘appease’ (?) could also belong here, if the geminate *rr* goes back to *rn*.

A larger category is made up of *x*|*Ø*-root subjunctives (and the corresponding preterites):

$\text{ss}\partial/\text{ske}$ -PRESENT		SUBJUNCTIVE
{ay $\text{ss}\partial/\text{ske}$ -}	←	{ay-} 'give'
{al $\partial\text{ss}\partial/\text{ske}$ -}		{al-} 'keep away'
{awn $\partial\text{ss}\partial/\text{ske}$ -}		{awn-} 'hit; start'
{enk $\partial\text{ss}\partial/\text{ske}$ -}		{enk-} 'take'
{kærk $\partial\text{ss}\partial/\text{ske}$ -}	— ⁸³	'bind'
{kləyn $\partial\text{ss}\partial/\text{ske}$ -}		{kləyn-} 'be necessary'
{trenk $\partial\text{ss}\partial/\text{ske}$ -}		{trenk-} 'cling'
{yam $\partial\text{ss}\partial/\text{ske}$ -}		{yam-} 'do'
{y ∂ (s ∂) $\text{ss}\partial/\text{ske}$ -}		{wəs-} 'wear'
{rəyn $\partial\text{ss}\partial/\text{ske}$ -}		{rəyn-} 'give up'
{l ∂ wt $\partial\text{ss}\partial/\text{ske}$ -}		{l ∂ wt-}? 'drive away'
{sayn $\partial\text{ss}\partial/\text{ske}$ -}		{sayn-} 'rest on'
{səyn $\partial\text{ss}\partial/\text{ske}$ -}		{səyn-} 'be depressed'

$\text{ss}\partial/\text{ske}$ -presents derived from the preterite fall into two groups: one group with only two verbs that does not allow for any generalisation, and one group of causative presents to ∂/x -roots. The problem with the latter group is that the exact derivation pattern is not very easy to describe. The present is clearly secondary, and the subjunctive is zero-derived from the present, so that the only candidate primary stem is the preterite. However, the preterite stem ends in *a*, and this *a* is generally (but not completely!) absent in the derived present. If the preterite is a derived *a*-preterite, then the present and the preterite are both derived from the root. On present forms with medial *a* that would make derivation from the preterite easier, cf the argumentation in Malzahn (forth.a) and 4.4.6 (p 398).

	PRESENT		PRETERITE
	{kən $\partial\text{ss}\partial/\text{ske}$ -}	←	{ken- $\emptyset/\text{sa}$ -}
	{kəlpá $\text{ss}\partial/\text{ske}$ -}		{kəlpá-}
caus. prs.	{kón $\partial\text{ss}\partial/\text{ske}$ -}	← root or caus. prt.	{kyána-}
	{tál $\partial\text{ss}\partial/\text{ske}$ -}		{cála-}
	{nórk $\partial\text{ss}\partial/\text{ske}$ -}		{ñárka-}

{kən $\partial\text{ss}\partial/\text{ske}$ -} is an isolated formation, since the other verbs of its class, i.e. with a $\emptyset/\text{e}$ -subjunctive, form $\text{ss}\partial/\text{se}$ -presents, and once a $n\partial\text{ss}\partial/\text{ske}$ -present. {kəlpá $\text{ss}\partial/\text{ske}$ -} is isolated because the subjunctive of this verb, {kállá-}, is one of the gemination subjunctives (see 2.5.8, p 90).

The following $\text{ss}\partial/\text{ske}$ -presents seem to be derived from the root because neither the preterite nor the subjunctive stem can be the basis. A small group of only four verbs has an $\text{'a}/\text{e}$ -subjunctive beside it; the 'ay -subjunctives are not numerous, but

⁸³ Cf $\text{x}|\emptyset$ -root preterite {kærk- $\emptyset/\text{sa}$ -}.

they fit into a regular pattern, so that only two examples are given (see also 2.7.6, p 127). The two $^{ss\partial}/ske$ -presents corresponding to *a*-subjunctives and preterites might be parallel to the causative presents discussed above because there we also see that an *a* disappears before the $^{ss\partial}/ske$ -suffix. However, they are clearly different in having medial accent instead of the initial accent regular for causatives (a sbj. {spálka-} is not attested, but can be inferred on the basis of the prt. {spalká-}).

PRESENT		SUBJUNCTIVE
{aksá $^{ss\partial}/ske$ -}	:	' ∂ / <i>e</i> -sbj. {ak $^{s\partial}/se$ -}
{ásá $^{ss\partial}/ske$ -}		{a $^{s\partial}/se$ -}
{yaská $^{ss\partial}/ske$ -}		{ya $^{ss\partial}/ske$ -}
{we(ñ) $^{ss\partial}/ske$ -}		{weñ ∂ / <i>e</i> -}
{awksá $^{ss\partial}/ske$ -}	:	' ∂y -sbj. {awkš ∂y -}
{wəsá $^{ss\partial}/ske$ -}		{wəš ∂y -}
{sompá $^{ss\partial}/ske$ -}	:	<i>a</i> -sbj. {sám ∂pa -}
{spalká $^{ss\partial}/ske$ -}		prt. {spalká-}

{nə $^{ss\partial}/ske$ }

Striking about nə $^{ss\partial}/ske$ -presents is that all three certain examples have a root-final *m* and metathesis of *mn* to *nm*; all seem to be derived from the preterite (or perhaps from the root in case of the irregular preterite of 'come'):

nə $^{ss\partial}/ske$ -PRESENT		PRETERITE
{kənmá $^{ss\partial}/ske$ -}	:	' ∂ / <i>e</i> -prt. {śem ∂ -, kəm $\acute{e}$ -, kəm- $\emptyset$ / <i>sa</i> -} 'come'
{tənmá $^{ss\partial}/ske$ -}	:	<i>s</i> -prt. {tem- $\emptyset$ / <i>sa</i> -} 'be born'
{yənmá $^{ss\partial}/ske$ -}		{yop- $\emptyset$ / <i>sa</i> -} 'enter'

Another candidate for this present class is {lənná $^{ss\partial}/ske$ -} of 'go out', but this verb forms a subjunctive that could also be the basis for an ordinary $^{ss\partial}/ske$ -present: {lənn-}. Especially if 'go out' belongs here, a further generalisation seems to be that at least three denote verbs of motion; possibly 'be born' could be seen as a movement, too (i.e. "into the world").

{na $^{ss\partial}/ske$ }

Strictly speaking, there is only one na $^{ss\partial}/ske$ -present: {kəllá $^{ss\partial}/ske$ -} of 'bring', next to a sbj. {ká $\acute{a}$ /*la*-} and a prt. {ś/*kə*lá-}. It is striking that exactly in this one example the *n* of the suffix is assimilated to the *l* of the root. An alternative analysis could take {kəllá $^{ss\partial}/ske$ -} as a normal $^{ss\partial}/ske$ -present derived from the subjunctive with irregular gemination of *l* to *ll*.

{ $\tilde{n}\tilde{n}^{\partial}/_e$ }

There are only a handful of derived $\tilde{n}\tilde{n}^{\partial}/_e$ -presents, which follow more or less the same pattern. Differences are only found in the subjunctive and preterite types: one type has *a*-grade throughout, and apart from the present, they behave like *a|a*-roots, whereas the other type has a grading subjunctive which behaves like a $\partial|a$ -root. In all cases, the present has ∂ -grade and no root-final *a*, so that all verbs must be classified as $\partial|\emptyset$ -roots:

$\tilde{n}\tilde{n}^{\partial}/_e$ -PRESENT		<i>a</i> -SUBJUNCTIVE	
{ $k\acute{a}sk\acute{a}\tilde{n}\tilde{n}^{\partial}/_e$ }	: with gradation	{ $k^{\acute{a}}/_\partial sk\acute{a}$ -}	'scatter'
{ $kl\acute{e}nt^{\partial}\tilde{n}\tilde{n}^{\partial}/_e$ }		{ $kl\acute{e}nt^{\partial}a$ -},	'sleep'
		prt. { $kl\acute{e}nt^{\partial}a$ -}	
{ $r\acute{a}sk\acute{a}\tilde{n}\tilde{n}^{\partial}/_e$ }		abs. <i>rsormem</i>	'stretch'
{ $n\acute{a}ytt\acute{a}\tilde{n}\tilde{n}^{\partial}/_e$ }	: with <i>a</i> -grade	{ $n\acute{a}ytta$ -}	'break down'
{ $m\acute{a}nt\acute{a}\tilde{n}\tilde{n}^{\partial}/_e$ }		{ $m\acute{a}nta$ -}	'destroy'
{ $m\acute{a}yw\acute{a}\tilde{n}\tilde{n}^{\partial}/_e$ }		{ $m\acute{a}ywa$ -}	'tremble'
{ $w\acute{a}sk\acute{a}\tilde{n}\tilde{n}^{\partial}/_e$ }		{ $w\acute{a}ska$ -}	'move'
{ $t^{\partial} \acute{a}yk\acute{a}\tilde{n}\tilde{n}^{\partial}/_e$ }		{ $t^{\partial} \acute{a}yka$ -}	'form'

The verbs for 'sleep' and 'stretch' must be of the grading subtype because they show ∂ -grade where the other verbs have *a*-grade. For 'sleep', additional proof for a grading subjunctive is the initial accent in the subjunctive and the initial palatalisation in the preterite. Since there is no way to account for a morphophonological process $a-\tilde{n}\tilde{n}^{\partial}/_e \rightarrow \partial-\tilde{n}\tilde{n}^{\partial}/_e$, we have to assume that the present and the subjunctive are both derived from the root.

{ $\langle n \rangle$ }

The *n*-infix has two variants: the largest group is formed has the infix directly before a root-final, "*na*-presents", and a smaller group of verbs in *-k* has the infix directly before the *-k*, "*nk*-presents".

The *na*-presents, which form a large class, all correspond to subjunctives and preterites in *a*. In grading roots, the present always has ∂ -grade. Some examples:

PRESENT		SUBJUNCTIVE	
{ $k\acute{a}rs\acute{a}na$ -}	←	{ $k^{\acute{a}}/_\partial rsa$ -}	'know'
{ $t\acute{a}rk\acute{a}na$ -}		{ $t^{\acute{a}}/_\partial rka$ -}	'let go'
{ $pl\acute{a}sk\acute{a}na$ -}		{ $pl^{\acute{a}}/_\partial ska$ -}	'think'
{ $mrawsk\acute{a}na$ -}		{ $mr\acute{a}wska$ -}	'feel weary'
{ $skayna$ -}		{ $sk\acute{a}ya$ -}	'try'

nk-presents are only formed to roots ending in *-k* and mostly *-tk*. However, the distribution is not perfectly complementary, since roots in *-k* are also found among

verbs that form *na*-presents. In addition, many verbs in *-k* have present forms of both types (cf Peyrot 2008a: 144-145). A peculiarity of *n*-infix presents is that the root-final *a* disappears; otherwise all attested roots are of the *a|a*-type, with grading subjunctives and initial palatalisation in the preterite. Only ‘write’ stands out in having *a*-grade in all non-present forms:

ROOT	PRESENT		PRESENT		SUBJUNCTIVE	
<i>-tk</i>	{pəwtṅk-}	>	{pəwtṭənk-}	:	{p ^á /əwtka-}	‘assign to’
	{rəwtṅk-}		{rəwtṭənk-}		{r ^á /əwtka-}	‘take away’
<i>-k</i>	{sərṅk-}		{sərənk-}		–	‘prepare’
	{səlṅk-}		{sələnk-}		{s ^á /əlka-}	‘pull out’
<i>pəyk-</i>	{pəyṅk-}		{pəynk-}		{páyka-}	‘paint; write’
~ <i>na</i> -prs.	{kətṅk-} ~		{kəttənk-},		{k ^á /ətkā-}	‘cross’
	{kətk-na-}		{kətkəna-}			
	{nətṅk-} ~		{nəttənk-},		{n ^á /ətkā-}	‘prompt’
	{nətk-na-}		{nətkəna-}			

The gemination of *t* in *n*-infix presents to *tk*-roots is regular (cf 2.5.8, p 90). In the classical Tocharian B period, forms with *e*-vocalism according to the pattern of the *ə/e*-presents arise, e.g. prs.ptc. *pinkemane* or 3pl.prs. *puttānkem* (Schmidt 1985: 426-429; Peyrot 2008a: 136-138).

2.8 THE IMPERATIVE

In both languages, the imperative stem is very close to the preterite stem and the subjunctive stem. The main differences are gradation and, in Tocharian B only, accent. As the basic classification principle in this chapter is affixation, we can say that these differences are inflectional characteristics of the preterite-subjunctive and imperative stem, and not stem-distinctive. Since the imperative is prefixed with TA *p-*, TB *p(ə)-*, one could theoretically argue that this prefix derives the imperative from the preterite or subjunctive.

A shared characteristic of the Tocharian A and B imperatives is that they are not very well attested and some verbs have isolated formations: some of these are certainly irregular, whereas others may in fact follow a pattern that is difficult to recognise because certain key forms are not attested.

2.8.1 TOCHARIAN A

The Tocharian A imperatives are classified according to the preterite they correspond to. In the case of the *x|ā*-root preterite, the lack of initial palatalisation in the imperative, even when the corresponding preterite does show a palatalised initial, would rather suggest derivation from the subjunctive. However, for the *s*-preterite the suffix *sā*, found both in the preterite and in the imperative, is a strong

argument to derive the imperative from the preterite instead. Moreover, the reduplicated preterite and the corresponding imperative are also closely related: if the preterite has initial palatalisation, it is also found in the imperative. Unfortunately, the pattern of the imperative corresponding to the $\bar{a}/a$ -subjunctive is particularly difficult to establish.

$x|\bar{a}$ -root preterite

The imperative to the $x|\bar{a}$ -root preterite is identical to that preterite, except for one important exception that has been discussed in 2.2.1 (p 29): the root-final $\bar{a}$ is deleted, and “replaced” by a stable $\bar{a}$ in the endings that is not subject to vowel weakening; only the pl.act. ending has no $\bar{a}$. This means that in the imperative the difference between $x|\emptyset$ -roots and $x|\bar{a}$ -roots, that plays such an important role in verbal morphology elsewhere, is neutralised. The $\bar{a}|\bar{a}$ -root preterite is still recognisable despite this neutralisation because of its gradation pattern, which is the same as in the corresponding subjunctive: a -grade in the active singular and $\bar{a}$ -grade in the active plural and the middle. Some examples are:

IMPERATIVE	ACT.SG.	OTHER	PRETERITE	SUBJUNCTIVE
[+grad]	{-kras-}	{-kräs-}	{šrä/ _{kra} sā-, kräsā-}	{k ^{ra} / _{rä} sā-}
	{-tark-}	{-tärk-}	{cä/ _{ta} rkā-}	{t ^a / _ä rkā-}
	{-štam-}	{-štām-}	{šä/ _{šta} mā-}	{št ^a / _ä mā-}
[-grad]	{-ent ^s -}	{-ent ^s -}	{ent ^s ā-}	{ent ^s ā-}
	{-kām-}	{-kām-}	{kāmā-}	{kāmā-}
	{-skāy-}	{-skāy-}	{skāyā-}	{skāyā-}

Two verbs show unexpected a -grade in the act.pl.: *plos* MY2.5b6 {pā-law-s} ‘send!’ (matched by MayH2.6a30-b1 *idinlar* ‘send (pl.)!’), has a sbj. {l^a/_āwā-} and a prt. {l^a/_āwā-} beside it, so that we would expect *pālwās* {pā-lāw-s}; pl. *pālmās* A274a4 {pā-lām-s} ‘sit down!’ is the regular plural imperative in view of the sbj. {l^a/_āmā-} and the prt. {l^a/_āmā-}, but we find the variant *plamās* MY3.12b5 {pā-lam-s} next to it.⁸⁴

The verb *tākā*- ‘be’ has an irregular imperative stem with an extra element š: {-štāk-}, i.e. sg. *pāštāk*, pl. *pāštākās*.

⁸⁴ As pointed out by Winter (1994a: 304-305), the Tocharian A plural imperatives of $x|\bar{a}$ -roots with truncated $\bar{a}$ are historically unexpected (see also 2.2.1, p 29). As he suggested to me, this is neatly explained with the assumption of an intermediate stage without imperative plural: the plural would secondarily have been formed after the singular (for a typological parallel, compare e.g. Dutch, which expresses number throughout the verb, except for the imperative, see Haeseryn e.a. 1997: 66). Evidently, this view receives strong support from the irregular imperatives *plos* and *plamās*.

s-preterite

The imperative to the *s*-preterite has a close affinity to that preterite because it shows the characteristic *s*-suffix in the middle.⁸⁵ The exact shape of the *s*-suffix is not evident: in the preterite it is *-sā-*, but for the imperative *-s-* is also possible. The only forms where the *s*-suffix occurs in the imperative are the sg. and pl. middle, whose endings have to be set up as *-ār* and *-āc*, respectively. Consequently, the surface combinations *-sār* and *-sāc* could be analysed either as *-sā-ār* and *-sā-āc* or as *-s-ār* and *-s-āc*. On the basis of the parallelism with other classes where the *ā* clearly belongs to the endings, not to the stem, I set up the suffix as *-s-*.

The number of verbs attested is small and the gradation patterns cannot be established with certainty: there are *a*-grade and *ā*-grade forms, but it is unclear whether *a* was found in the active and *ā* in the middle, or the active plural perhaps had *ā*-grade as well (*a* being confined to the singular active only). There are two grading *s*-preterites, {^{ca}/tās-^Ø/(^s)ā-} of *tās-* ‘put’ and {^{pr}a/āk-^Ø/sā-} of *prāk-* ‘ask’, of which the first forms a grading imperative, too: {-^ta/ās-}, sg.act. *ptas*, sg.mid. *pātstsār*, pl.mid. *pātstsāc*.⁸⁶ Of the second only middle forms are attested, which have *ā*-grade: {-^{pr}āk-^Ø/s-}. Another relevant form is sg.act. *pkanāni* with *a*-grade in the stem {-kan-} of *kān-* ‘fulfil’, but a corresponding *s*-preterite (probably a *sā*-less preterite) is not attested. Further, *pakārkas* THT4083e.a5 may represent {^p-kärk-s} with *ā*-grade to an *a*-grade *s*-preterite, but the spelling of the vowels is irregular to such an extent that we can hardly draw conclusions about the root vocalism.

Some examples (the zero variant of the suffix is bracketed if only middle forms are attested):

IPV. ACT.	MIDDLE	PRETERITE	
	{-ar- ^Ø /s-}	{ar- ^Ø /sā-}	‘cause’
	{-āw- ^Ø /s-}	{āw- ^Ø /sā-}	‘(hit); start’
{-tas-} ⁸⁷	{-tās-}	{ ^{ca} /tās- ^Ø /(^s)ā-}	‘put’
	{-pärk- ^Ø /s-}	{ ^{pr} a/āk- ^Ø /sā-}	‘ask’
{-yām- ^Ø /s-}	{-yām- ^Ø /s-}	{yām- ^Ø /sā-}	‘do’
	{-rāy- ^Ø /s-}	{rāy- ^Ø /sā-}	‘give up’

To the verb *k^wām-* ‘come’ we find a pl.act. ipv. *pukmäs* {^p-k^wām-s}. This form is difficult to classify because the preterite of *k^wām-* is not attested, but it might belong

⁸⁵ Active forms are rare, but the *s*-suffix occurs only in the middle, as is made clear by sg.act. *pyām*, pl.act. *pyāmäs* vs sg.mid. *pyāmtsār*, pl.mid. *pyāmtsāc*.

⁸⁶ <tsts> /t^s/ represents the length of the two phonemes /t/ and /s/ that merge into /t^s/.

⁸⁷ The pl.act. is not attested; it is on the basis of the dichotomy active : middle in the preterite that I assume that it lines up with the act.sg. rather than with the middle (as in the subjunctive).

here. In any case, it cannot be derived from the subjunctive without difficulties, since there the initial is palatalised: {śām^ä/_a-}.

reduplicated preterite

The patterns of the imperative to the reduplicated preterite are not completely clear due to the absence of sufficient attested forms. In any case, although it is not reduplicated, it is closest to the preterite, as evidenced by *pāśśām* with initial palatalisation further found only in the preterite. *pālmāśār* is the only form derived from the subjunctive, whereas we would expect {-lām-}, i.e. *pālymār*^{**}. The following imperatives are formed to reduplicated preterites:

IMPERATIVE		PRETERITE	SUBJUNCTIVE	
{-kāl-}	:	{ka-kālā-}	—	‘bear’
{-yār-}		{ya-yārā-}	{yārā ^{sä} / _{sa} -}	‘bathe’
{-wātk-}		{wa-wātkā-}	—	‘command’
{-wāyk-}		{wa-wāykā-}	{wāykā ^{sä} / _{sa} -}	‘remove’
{-śārs-}		{śa-śārsā-}	—	‘let know’
{-ś(ś)ām-}		{śa-śśāmā-}	{štāmā ^{sä} / _{sa} -}	‘establish’

^ä/_a-subjunctive

Again, the number of forms is too small to draw firm conclusions about the formation of this imperative type. Since any final *ā* of the preterite stem is deleted in the imperative, it is impossible to see whether these imperatives are derived from the subjunctive with ^ä/_a-suffix or the preterite derived from it; in both cases we would expect *ä*-variants with palatalisation. The examples are the following:

IMPERATIVE		PRETERITE	SUBJUNCTIVE	
{-ākṣāññ-}	:	{ākṣāññā-}	{ākṣāññ ^ä / _a -}	‘announce’
{-enṣ-}		—	{en ^{sä} / _{sa} -} ⁸⁸	‘command’
{-klawṣ-}		{klawṣā-}	{klaw ^{sä} / _{sa} -}	‘hear’
{-pāṣ-}		{pāṣā-}	{pā ^{sä} / _{sa} -}	‘protect’
{-(w)lāyṣ-}		{wlāyṣā-}	{wlāy ^{sä} / _{sa} -}	‘carry out’
{-lāc-}		{lācā-}	{lānc ^ä / _a -}	‘go out’
{-en-}		{weñā-}	{weñ ^ä / _a -}	‘speak’

A remarkable case is {-lāc-} because the corresponding subjunctive has an *n* in the root. If the verb had not been so irregular, this could be taken as an argument that the imperative is derived from the preterite and not from the subjunctive. {-en-} is irregular because it does not have the palatalised *ñ* found in most other stems

⁸⁸ The variant {eñ^ä/_a-} is attested once, in the verbal noun *eñlune*.

formed by this root (the present root is suppletive *tränk-*); perhaps this phenomenon can be connected with the extra short 3sg.prt. *we* {weñā-Ø}. Both {-en-} and {-lāyş-} have lost the initial *w* of the root, i.e. we find sg.act. *peṃ* and sg.mid. *pleṣār* instead of e.g. ***pwem* and ***puleṣār* (see 2.4.6, p 47).

irregularities

Apart from the irregularities already noted, there are two verbs that are so irregular that they cannot be ranged under one of the categories above.

‘give’ has a sg.act. ipv. *paṣ* and a pl.act. *pac*, which are impossible to analyse in terms of the morphemes encountered in other stems of ‘give’, i.e. sbj. {āy-}, prt. {wäs-Ø/(s)ā-} etc (see 2.5.5, p 78); even the endings do not fit the normal pattern for the imperative. The initial *p-* is probably the imperative prefix, but *-aṣ* resists further analysis; the final *-c* of *pac* may be compared with the middle 2pl. ending *-c* of the preterite and imperative, or with the active 2pl. of the present.

‘go’ has a sg.act. *piṣ*, a du.act. *pines* and a pl.act. *pic* next to *picäs*. The initial *p-* is probably the imperative prefix, and the medial *i* could reflect the present root {y-} (the suppletive prt.-sbj. root is *kälkā-*); the finals are clearly the same as for ‘give’ above (*picäs* evidently has the regular pl.act. ending *-s* added).

2.8.2 TOCHARIAN B

In general, the Tocharian B imperative is close to the subjunctive. In the *x|a*-root subjunctive it has the same accent and gradation; in the *x|Ø*-root subjunctive it seems to have the same gradation (although it goes together with the preterite in having a *sa*-suffix in the middle); and the active imperative forms to *ʔ/e*-subjunctives conform to those subjunctives in lacking the preterite suffix *a*. However, the middle forms to the latter category seem to actually have this preterite suffix *a*, and the causative preterite is closest to the imperative found next to it because both lack the prs.-sbj. suffix {ssə/ske}.

x|a-root subjunctive

The imperative to the *x|a*-root subjunctive is easy to describe: its stem is identical to the subjunctive. With *a|a*-roots, the only indication for a close relationship with the subjunctive rather than the preterite is the initial accent of the imperative, which is also found in the subjunctive, but not in the preterite. With *ʔ|a*-roots, an additional argument is that the characteristic initial palatalisation of the preterite is not found in the imperative, whereas the gradation pattern is identical to that of the subjunctive. Some examples are:

IMPERATIVE	ACT.SG.	OTHER	SUBJUNCTIVE	
[+grad]	{-kársa-}	{-kórsa-}	{k ^á /srsa-}	'know'
	{-kála-}	{-kóla-}	{k ^á /sila-}	'bring'
	{-tárka-}	{-tórka-}	{t ^á /srka-}	'let go'
	{-láma-}	{-lóma-}	{l ^á /sma-}	'sit'
[-grad]	{-táka-}	{-táka-}	{táka-}	'be'
	{-wáya-}	{-wáya-}	{wáya-}	'lead'
	{-wérpa-}	{-wérpa-}	{wérpa-}	'enjoy'
	{-skáya-}	{-skáya-}	{skáya-}	'try'

x|Ø-root subjunctive ~ s-preterite

As far as can be established with the forms attested, the imperative to the *s*-preterite seems to be close at least to the preterite, since it has its characteristic *sa*-suffix in the middle. It is sometimes assumed (e.g. Marggraf 1970: 34) that it has the gradation pattern of the subjunctive, which would rather suggest a close relationship to the latter category, but the evidence is meagre (see below). That the *sa*-suffix is confined to the middle, whereas the active has no suffix, is shown by two verbs of which active and middle imperative forms are attested: sg.act. *paum* {p-awn-Ø} 'hit' vs pl.mid. *pauntsat* {p-awn-sa-t} and sg.act. *pyām* {p-yam-Ø} 'do' and pl.act. *pyāmtso* {p-yam-sa} vs sg.mid. *pyāmtsar* {p-yam-sa-r} and pl.mid. *pyāmtsat* {p-yam-sa-t}.

Gradation is more difficult. Of two verbs with a grading subjunctive only sg.act. forms are attested, where we would expect full grade on any account: *pkel* and *pyop*. If the plural is parallel to the subjunctive, we would expect *pkaltso* or *pkalās* and *pipso* or *pipās*,⁸⁹ if it is parallel to the preterite, *pkeltso* and *pyopso* etc. The pl.mid. *parksat* {p-prāk-sa-t} is of no further help because it is middle, where we would expect *a*-grade in any case. The only verb that suggests *e*-grade in the act.sg. only and *a*-grade for all other forms for the whole type is *tās*- 'put': sg.act. *ptes* {p-tes-Ø} vs pl.act. *ptāssō* (arch.) {p-tās-sa} and sg.mid. *ptāsar* (arch.) {p-tās-(s)a-r}. Since *tās*-forms an irregular subjunctive, it does not have this gradation pattern anywhere else; it is on the basis with the parallelism with the subjunctives of *other* verbs that we have to assume that this gradation pattern is identical to that of the subjunctive.

Some examples are:

IMPERATIVE	PRETERITE	SUBJUNCTIVE	
{-awn-Ø/sa}	cf {awn-Ø/sa-}	{awn-}	'hit; start'
{-enk-(Ø)/sa-}	{enk-Ø/sa-}	{enk-}	'seize'
{-te/əs-(Ø/s)a}	{te/əs-Ø/sa-}	{təttā-}	'put'
{-yam-Ø/sa}	{yamās-sa-}	{yam-}	'do'

⁸⁹ This last form is probably attested in B375b4, but since the first akṣara is restored, we still cannot decide between *(pi)pās* and *(pyo)pās*.

In view of the clear distribution of the *sa*-suffix described above, the well-attested sg.act. *peñsa* {p-enk-sa-Ø} next to *peñsar* {p-enk-sa-r} once is irregular: the regular active form would have been *peñk***. I would now assume that the presence of the *sa*-suffix, characteristic of the middle, suggests that *peñsa* goes back to *peñsar* through loss of *r*, probably by an incidental sound change. If so, the *-r* can have been restored at any time to fit it into the regular pattern again (this complements Peyrot 2008a: 159).

causative preterite

Most of the imperatives to causative preterites follow a regular pattern that is closest to the preterite, but not identical to it: it shares the initial palatalisation and the final *a* of the preterite stem, but instead of *a*-grade, it has *ə*-grade in the root. The following verbs display this pattern:

IMPERATIVE		PRETERITE		PRESENT-SUBJUNCTIVE	
{-ccəpa-}	←	{təpəʃʃa-}	cf	{təpə ^{ssə} /ske-}	‘announce loudly’
{-ñarka-}		{ñarka-}		{nərkə ^{ssə} /ske-}	‘keep away’
{-yətkə-}		{yátka-}		{wətkə ^{ssə} /ske-}	‘command’
{-yəra-}		–		{wəra ^{ssə} /ske-}	‘train’
{-ścəma-}		{ścəma-}		{stəmə ^{ssə} /ske-}	‘establish’

Of these verbs, {təpəʃʃ-a-} has an unexpected *a*-preterite; we would rather expect {căpa-}*. To the causative preterite {căwka-} we find an ipv.sg. *păccauk* with *a*-grade instead of the expected *păccuka* {pə-ccəwka-}. *šālāt* B575a7 could have the same *a*-grade if it is the pl.mid. ipv. to the causative preterite {śála-} (for expected *pśalat* {p-śála-tə}).

There are also a few verbs with causative preterites that form a different imperative from the present-subjunctive stem, cf under *a*-imperatives.

’ə/e-imperative

Next to ’ə/e-subjunctives we find two imperatives with exactly that subjunctive stem, i.e. a palatalised root final just like in the *ə*-variant of the subjunctive:

IPV. SG.	IPV.PL.		SUBJUNCTIVE		PRETERITE	
<i>păklyauş</i>	<i>păklyauşso</i>	=	{kľew ^{sa} /se-}	cf	{kľewşá-}	‘hear’
<i>poñ</i>	<i>pontso</i> , late <i>poñes</i>		{weñ ^ə /e-}		{weñá-, wñá-}	‘say’

In view of *păklyauşso*, late *poñes* must be secondary, whereas *pontso* must have lost the palatalisation of the *ñ* before the *s* of the plural ending. For the *e* of *poñes* see directly below.

e-imperative

In a number of imperatives we find an ending *e* that is difficult to understand. Four occurrences in imperatives to ³/_e-subjunctives suggest that it is somehow to be connected with the *e*-variant of that type. However, on the basis of *päklyauš* and *päklyaušso*, we would rather expect only *a*-variants; likewise, the distribution of those variants in the present and subjunctive paradigms suggests an *a*-variant for the 2sg. and the 2pl. Moreover, three other verbs, each from a different class, are certainly to be explained differently.

IPV.SG.	IPV.PL.		SUBJUNCTIVE	PRETERITE	
<i>pokse</i>	<i>pokses</i> ⁹⁰	:	{ak ^{sa} /se-}	{akšá-}	‘announce’
<i>ptānwāññe</i>			{tānk ^w āññ ^a /e-}	{tānk ^w āññā-}*}	‘love’
<i>peplyaŋke</i>			{plān ^{ca} /ke-}	{plenk- ^o /sa-}	‘sell’
	<i>plakāskes</i>		{lāk ^{sa} /ske-}	{lākāšša-}	‘show’
<i>pšāy(e)?</i>	<i>pšaiso</i>		{šay ^a /e-}	{šayá-}	‘live’
<i>pete</i>	<i>p(e)tso</i> , <i>petes</i> ⁹⁰	other	{ay-}	{wās- ^o /sa-}	‘give’
<i>ptālle-ñä</i>			?	?	‘bear’
<i>pīrpe</i>	<i>pīrpso</i>		{yārp-}	{yārp- ^o /sa-}	‘respect’

Since these verbs form various different subjunctives and preterites, they certainly need not form one imperative type. If they form one type indeed, the sg. seems to be best attested: it always has the ending *-e* following a non-palatalised consonant. The plural is less well attested, with three times *-es* against three times *-so* {-sə}. The evidence of *p(e)tso*, *petes* suggests that the plural in *-es* is a late development of the plural in *-so*, which is in line with *pokses* being late, too, but contradicted by classical *plakāskes* (however, the late form *poñes*, cited above, is a nice parallel to *petes*). The classification of *šay*- ‘live’ is uncertain altogether because the sg.ipv. is restored and the pl.ipv. could also be of the type *päklyaušso*. *peplyaŋke* is very difficult to analyse because it seems to be reduplicated (cf the prt.ptc. *peplyaŋku*); if it is in fact prefixed, it would have a prefix {pe} instead of the usual {pə}, or its *pe*- is somehow to be compared with *pete* etc. The analysis of *ptālle-ñä* is hampered by the fact that the verb is only very imperfectly known, whereas *pete* etc are completely irregular and etymologically unrelated to the other stems of the same verb. The subjunctive to *pīrpe* could in fact also be of the ³/_e-type; although in most of the other verbs the preterite is derived with an *a*-suffix, such a pattern would have a parallel in *peplyaŋke* (if the initial *pe*- can be explained).

⁹⁰ It seems that the *-e* ending is regular in the singular only, especially since *p(e)tso* is an older variant of late *petes*. The same explanation can be applied to *pokses*, which is also attested in a late text, but unfortunately *plakāskes* is attested in a classical text so that this form would need a different explanation.

a-imperative

The existence of imperatives derived with a suffix *a* is problematic: all classes discussed above either have a final *a* in the active and the middle (the *x|a*-root preterite and the causative preterite type), or they have a final *a* in the middle only (the *s*-preterite type), or they have no middle forms (the ^ʔ/*e*- and the *e*-imperative). Strikingly, no middle forms without final *a* are attested, e.g. ***pāklyaušār* or ***plakāsker* (admittedly, none of the verbs with these imperative types has a suitable meaning). Since all imperative stems cited below are attested with middle forms only, there is a possibility that they form in fact one type with either the ^ʔ/*e*-imperative or the *e*-imperative; cf especially sg.act. *ptāñwāññe* vs sg.mid. *porcaññar*, pl.act. *plakāskes* vs sg.mid. *maskāšsar* {(pə)-móskəšša-r} and pl.act. *pāklyaušso* vs pl.mid. *pāšsat* {pə-pāšša-tə}.

IMPERATIVE		SUBJUNCTIVE		PRETERITE	
{-kətkəšša-}	cf	a.o. {kətkə ^{ssə} /ske-}	caus.	{sátka-}	‘make pass’
{-móskəšša-}		{móskə ^{ssə} /ske-}		{myáska-}	‘exchange’
{-stəynášša-}					‘make silent’
{-t ^s əlpəšša-}		{t ^s əlpə ^{ssə} /ske-}		{t ^s yálpa-}	‘redeem’
{-awnəšša-}			<i>a</i> -prt.		‘make start’
{-orcəññā-}		{arccəññ ^ə / <i>e</i> -}			‘have to’
{-kátkašša-}		{kátka ^{ssə} /ske-}			‘please’
{-kláwtkašša-}		{kláwtka ^{ssə} /ske-}			‘turn away from (tr.)’
{-pāšša-}		{pa ^{ssə} /ske-}		{pašša-}	‘protect’
{-plántəšša-}					‘please’
{-t ^s árwəšša-}		{t ^s árwə ^{ssə} /ske-}		{t ^s árwəšša-}	‘console’

Following Schmidt (1974: 25), *psaina* B527a1, next to a *x|Ø*-root subjunctive {sayn-} and an *s*-preterite {sayn-^Ø/*sa*-} could indeed have to be restored as *psaina(r)*, but for exactly this stem pattern there is no parallel.

irregularities and further uncertainties

Apart from ‘give’, listed above, the verb ‘go’ has an irregular imperative: sg. *paš*, pl. *pcīso*, late *cisso* is not analysable in terms of the other stems prs.-sbj. *y-* or prt. *məs-*, *meyt-*. The initial *p-* is probably to be identified with the imperative prefix and the *s* or *so* of the plural with the plural ending *-s*, but the other elements fit no pattern.

To ‘go out’, which forms an ^ʔ/*e*-preterite, only one imperative form is attested: pl. *platstso*. The only thing we can note is that it does not have the palatalised *c* found in some persons of the preterite, nor the *n* characteristic of the subjunctive. The form could be parallel to the *e*-imperatives, i.e. with a sg. *plate** and a late pl. *plates**, but this is all conjecture. The causative sg.mid. *plyatstsar-me* is difficult to understand

altogether, as it seems to be built on an *s*-preterite with *sa*-suffix in the middle, but the only other causative form attested shows a *prs.-sbj.* stem {ləntə^{ssə}/ske-}.

Winter (1984: 119) argued that *kamp* B331b3 is an error for an *sg.ipv.* *pkam* of *kəm*- ‘come’, and Schmidt (1994b: 273, 2000: 226) restored a corresponding plural [k](a)m(ts)o in B108a10. These forms would fit well to the preterite stem variant {kəm-} (next to {sem-} and {kəm-sa-}), but of course they remain uncertain as one is corrected, the other restored, and the whole pattern of the verb without parallels.

2.9 THE PRETERITE PARTICIPLE⁹¹

In principle, the preterite participle can be completely derived from the preterite. However, in some cases the derivation rules are delicate and in some others the preterite is enlarged by a suffix that is not found in the preterite participle. For the shape of the reduplication syllable and the root vocalism, see 2.5.6 (p 81).

2.9.1 TOCHARIAN A

Apart from the shape of the reduplication syllable and the root vocalism, a description of the Tocharian A preterite participle has to address the following variables: presence or absence of a reduplication syllable; presence or absence of initial palatalisation; ending *-u* {-w} or *-o* {-āw}. These points are addressed below.

reduplication syllable

In principle, all preterite participles are reduplicated. Reduplication is lacking

- 1) in all verbs starting with a vowel;
- 2) in some verbs starting with *y*- or *w*- (see in particular Winter 1977: 157);
- 3) in all preterite participles formed to *ā|ā*-root preterites.

sub 1)

This peculiarity has also been noted in 2.4.5 (p 46). Some illustrative examples are: *aru* ‘called forth’ ~ prt. {ar-^o/sā-} vs *nānku* ‘criticised’ ~ prt. {nāk-^o/sā-} or *ārtu* ‘praised’ ~ prt. {ārtā-} vs *nānāsku* ‘spun’ ~ prt. {nāskā-}.

sub 2)

For this phenomenon, one may compare for instance *yāmu* ‘done’ ~ prt. {yām-^o/sā-} or *walu* ‘died’ ~ prt. {wāl-^o/sā-} with *lyalyuku* ‘illuminated’ ~ prt. {lawk-^o/sā-}. However, it is not a rule without exceptions. Most cases of absence of reduplication with initial *y*- and *w*- are found next to *s*-preterites, while preterite participles to *ā|ā*-root preterites are normally reduplicated. However, some *s*-preterites with initial *y*- or *w*- do combine with reduplicated preterite participles.

Without reduplication we find with *s*-preterite: *yāmu* ‘done’, *yomu* ‘obtained’, *watku* ‘commanded’, *walu* ‘died’, *wasu* ‘dressed’ (preterite not totally certain); with

⁹¹ Cf in general also Peyrot (forth.a).

reduplicated preterite: *watu* ‘set up’; with *ā|ā*-root preterite: *wāmpu* ‘decorater’; with unknown preterite: *yāṃṣu* ‘let done’, *waltsu* ‘reduced’ (next to *woltsu*!).

With reduplication we find with *ā|ā*-root preterite: *yāytu* ‘controlled’, *wāwlu* ‘covered’, *wāwāsku* ‘moved’, *wāweku* ‘decayed’, *wāweku* ‘lied’, *wāwnesku* ‘tormented’, *wāwru* ‘woken up’; with *s*-preterite: *yaiwu* ‘entered’, *wawu* ‘given’; with *ā*-preterite: *wāwleṣu* ‘worked’, *wewñu* ‘said’; with reduplicated preterite: *yetu* ‘decorated’, *wotku* ‘commanded’, *wawru* ‘trained’ (preterite not completely certain), *wawiku* ‘removed’; with unknown preterite: *yāyru* ‘bathed’, *wāwāskāṣu* ‘moved’, *yayāsku* ‘?’, *woru* ‘filled’, *worku* ‘?’, *worpu* ‘surrounded’, *wawārṣu* ‘smelled’, *wawimṣu* ‘revered’.

sub 3)

This category is homogeneous and the rule seems to have no exceptions. Some examples are: e.g. *kālko* ‘gone’, *kālpo* ‘obtained’, *tārko* ‘let go’, *lmo* ‘sat’ vs *kākropu* ‘gathered’ (prt. {krāwpā-}), *tātwañku* ‘squeezed in’ (prt. {twānkā-}*), *māmrosku* ‘wearied’ (prt. {mrāwskā-}).

An exception is *lantu* ‘gone out’, the usual form next to *laltu* once and *lalntu* twice. Possibly, *lantu* developed out of *lalntu* through sound change.

initial palatalisation

Initial palatalisation is found in two categories: preterite participles to 1) reduplicated preterites (with initial palatalisation) and 2) some *s*-preterites.

sub 1)

This pattern is rather clear and regular, e.g. *caclu* ‘lifted’ to {ca-cālā-} or *lyalymu* ‘placed’ to {la-lāmā-}. Probably, we can deduce the same preterite type on the basis of the following preterite participles with initial palatalisation: *caccriku* ‘confused’, *cacpu* ‘announced’, *cacpuku* ‘hidden’, *cacrāñku* ‘let hang’, *ñañārku* ‘kept away’, *ñañitku* ‘supported’,⁹² *ñañmu* ‘bent’ (next to *nanmū*), *lyalyāñku* ‘let hang’, *śasātku* ‘made pass’, *śasālpu* ‘redeemed’. The only drawback for setting up reduplicated preterites to these participles is that some (especially those with *ly*-, perhaps also those with *ñ*-) could also belong to the *s*-preterite type, cf below.

sub 2)

This pattern is unclear. On the evidence of {ca/tās-*Ø*/(s)ā-}, {wack-*Ø*/sā-}, {śark-*Ø*/sā-} vs to ‘put’, *watku* ‘separated’, *kakārku* ‘bound’, initial palatalisation of the *s*-preterite is *not* matched by initial palatalisation in the corresponding preterite participle. However, we do find two cases: {lawk-*Ø*/sā-} ~ *lyalyku* ‘shone’ and {layp-*Ø*/sā-} ~ *lyalypu* ‘remained; resulted’ (mostly in the noun *lyalypu* ‘karma’). Possibly, these are to be seen in the light of the tendency of *l* to be over-palatalised (see 2.5.4, p 76); otherwise, it could be that the verbs in question had a causative with reduplicated preterite next to them.

⁹² The unpalatalised reduplicated preterite *nanātkāt*, cited only by Thomas (1964: 110), may well be a ghost form.

final *-u* or *-o*

If forms like *kākku* ‘called’ are analysed as having three underlying *ā*-vowels of which two are weakened, i.e. {*kā-kākā-w*}, the only suffix is *-w* and *-o* is a variant of it. However, it seems practical to give the rules to derive the surface endings *-u* and *-o* as well.

-o is regular in all preterite participles formed to *ā|ā*-root preterites. Since the stem clearly ends in *-ā*, these can be analysed as *-ā* plus the preterite participle suffix *-w*. To illustrate this, we can take the same examples as above: *kālko* ‘gone’, *kālpo* ‘obtained’, *tārko* ‘let go’, *lmo* ‘sat’, i.e. {*kālkā-w*}, {*kālpā-w*}, {*tārkā-w*} and {*lāmā-w*}. Since according to the rules formulated above these participles are never reduplicated, participles like *kāko* ‘killed’ cannot be of the same type. All reduplicated participles ending in *-o* have a monosyllabic stem in *-ā* or a stem in *-w*, cf with *-ā*: *pāplo* ‘?’ (sbj. {*plā-*}), *yāyo* ‘driven’ (prt. {*yā-*}), *lyālyo* ‘wiped away’ (sbj. {*lā-*}), *wāwo* ‘carried’ (prt. {*wā-*}), and probably *kāklo* ‘fallen’ (prt. {*klā-*}, but the prs. has *w* in the root: {*klawā-*}); with *-w*: *kāko* ‘killed’ (prt. {*kāw-^o/_{sā-}*}), *śāšo* ‘lived’ (prt. {*śāwā-*}). The first type is to be analysed {*pā-plā-w*} etc, the second {*kā-kāw-w*} etc. Accordingly, isolated *kākso* ‘blinded’ (Carling 2009: 185) suggests a root *ksā-* with a prt.ptc. {*kā-ksā-w*} or *ksāw-* with a prt.ptc. {*kā-ksāw-w*}. *to* ‘put’ is parallel in having the ending *-o* and a subjunctive {*tā-*}, but deviates because it is not reduplicated.

All other verbs have *-u*. This *-u* can be “original”, i.e. a *x|Ø*-root directly followed by the preterite participle suffix as most probably in such forms as *onu* ‘hit’, *rarku* ‘covered’ or *wawu* ‘given’, which have no stem in *-ā* beside them. In most cases, however, the *-u* has arisen by vowel weakening, which weakened the *-ā* which would otherwise have combined to *-o*. All *ā|ā*-root preterites have this weakening, e.g. *kākmū* {*kā-kāmā-w*} ‘taken’ with reduction of both the final *ā* and the root *ā*, or *pāpeku* ‘written’ or *kākotu* ‘cut up’ with the root *ā* preserved before *y* or *w*.

In some categories it is unclear whether the root-final *ā* is reduced or whether it was never there, e.g. *caclu*, which is paired with a reduplicated preterite {*ca-cālā-*} with final *ā*, but a present {*tāl^{sā}/_{sā-}*} without.

not formed from the preterite

The preterite participle *kākkñāññu* of the verb ‘know’ is not formed from the preterite {*kñās-^o/_{(s)ā-}*}, but rather from the subjunctive {*kñāñā/_{a-}*}. A similar problem holds for *to* ‘put’, which seems closer to the subjunctive {*tā-*} than the preterite {*ca/_{tās-}^o/_{(s)ā-}*} (see also above). It is certainly no coincidence that these verbs have other irregularities such as *a*-grade in the *s*-preterite combined with *ā*-grade elsewhere, and an *-s-* throughout the preterite active (not only in the 3sg.).

2.9.2 TOCHARIAN B

Apart from the shape of the reduplication syllable, a description of the Tocharian B preterite participle has to address the following points: presence or absence of the

reduplication syllable; presence or absence of initial palatalisation; the root vowel; the inflexion class. These points are discussed below.

reduplication syllable

Like in Tocharian A, the normal situation seems to be that the preterite participle is reduplicated. Although more types lack reduplication than in Tocharian A, a general rule can be formulated: if the preterite has only *ə*-vocalism, reduplication is lacking. Instances of this rule are e.g. *ltu*, *-uweš* to {l^əc^ə/te-} ‘go out’ or *ktau*, *-oš* to {^š/k^ətá-} ‘strew’. We further find reduplication missing in all roots starting with a vowel and in two starting with *y*-.

Preterite participles to roots starting with a vowel are e.g. *eñku*, *-oš* ‘taken’, *aipu*, *-oš* ‘covered’, *aiwau* ‘turned to’, *āksau* ‘woken up’. The two preterite participles to roots starting with *y*- that are not reduplicated are *yāku*, *-oš* ‘drunk’ and *yāmu*, *-oš* ‘done’. Although both are formed to irregular preterite types, there is no other rule to explain the lack of reduplication: it must be due to the initial *y*-. Usually, verbs with *y*- have reduplicated preterite participles if the preterite does not have only *ə*-vocalism, cf *yayāsaš* ‘boiled’, *yayāššoš* ‘begged’, *yaitu* {ye-*y*ət-(*ə*)w}, *-oš* ‘decorated’, *yainmu* {ye-*y*ənm-(*ə*)w}, *-oš* ‘obtained’, *yaipu* {ye-*y*əp-(*ə*)w}, *-oš* ‘entered’, *yayaukaš* ‘used’.

initial palatalisation

Initial palatalisation is regularly found in preterite participles to causative preterites with initial palatalisation, e.g. *keklyutku*, *-oš* ‘turned into’ ~ prt. {kláwtka-}, *ceccuku*, *-oš* ‘hidden’ ~ prt. {cáwka-}, *l(y)elyamoš* ‘placed’ ~ prt. {láma-}. However, on the evidence of abs. *tsetstsarormem* ‘having separated’ vs prt. {t^šyára-}, the secondary palatalisation series *ky*, *py*, *my* and *tšy* is *not* found in the preterite participle.

The *a*-grade *ə*/a-preterites (the *lyāka*-type), which are formally very close to the causative preterite, also have palatalised initials both in the preterite and in the preterite participle, cf abstr. *pepālywor* ‘complaint’ to {pláwá-}, (*lye*)*lyaku*, *-oš* to {laká-} and abs. *lyelyuwormem* ‘having rubbed’ to {lawá-}.

ə/a-root preterites, which may have initial palatalisation in the act.sg., never have initial palatalisation in the preterite participle; even if the palatalisation is (irregularly) found in the whole preterite, it is not found in the participle, cf {ñ^ət^əká-} vs *nātkau*, *-oš* ‘prompted’.

root vowel

The root vowel of the preterite participle is in principle the same as that of the preterite, and if the preterite is grading, the root vowel is *ə*. This rule is illustrated with e.g. *keklyaušu*, *-oš* ~ prt. {klewšá-}, *trikau*, *trikoš* ~ prt. {trəyká-}, *tetemu*, *-oš* ~ prt. {tem-^ə/sa-} (*e*-grade also attested for the middle), *peparku*, *-oš* ~ prt. {pr^ə/ək-^ə/sa-}, *yāku*, *yākoš* ~ prt. {ya^{šə}/ke-}. It needs the assumption that active only

verbs such as *yaipu*, *-oş* ~ {yop-^Ø/_{sa}-} belong to the same type as *peparku* with *a*-grade in the middle.

Two classes are excepted from this generalisation: the causative and *a|a*-preterites with *a*-grade (the *lyāka*-type) mentioned above.

inflexion class

There are four inflexion classes: 1) *-u*, *uweş*; 2) *-u*, *-oş*; 3) *-au*, *-oş*; and 4) *-au*, *-aş*. The division between 1) and 2) on the one hand and 3) and 4) on the other is principally between *x|Ø*-roots and *a|a*-roots. *a*-preterites are counted as *x|Ø*-roots in this respect, except for the type *mamāntau*, *-aş*. Basically, the rule is that if the *a*-preterite is matched by an *a*-subjunctive, the preterite participle is of class 3) or 4) and if the *a*-preterite is derived from a different subjunctive type, it is of class 1) or 2). Here again a subtlety has to be noted, as the *a|a*-root preterites with *a*-grade (the *lyāka*-type) behave like *a|Ø*-roots.

The difference between classes 3) and 4) is relatively simple: the former has no reduplication and the latter has; accordingly, class 3) is stressed on the suffix, but class 4) on the root. Evidence from roots starting in a vowel is meagre, but it seems that although these roots are never reduplicated, they count as reduplicated if they had been reduplicated according to another rule.

The difference between classes 1) and 2) also seems to be related to the presence of a reduplication syllable, but the number of examples of especially class 1) is too small to set up reliable rules. In any case, verbs with vowel initials that would have been reduplicated by another rule and the two verbs with initial *y-* that likewise resist reduplication count as reduplicated: they are not automatically taken up by class 1). A special group of verbs with inflexion class 1) and reduplication have roots ending in *-w*, so that this inflexion compensates for that fact that the preterite participle suffix obscures the final *-w* of the root. Two verbs seem to have this inflexion in combination with reduplication although their roots do not end in *-w* (see the scheme below); for these verbs I have no explanation.

Class 4) is principally filled with *a|a*-root preterites; class 3) is filled with *a|a*-root preterites; in class 2) we find *s*-preterites, causative preterites and *a*-preterites to *ʔ/e*-subjunctives. Class 1) consists of such a small number of members that the verbs are given below:

[-red]	<i>tänkuweş</i>	‘checked’	<i>s</i> -preterite	sbj. {t ^é / _{nk} -}
	<i>putkuweş</i>	‘closed’		sbj. {pəwtk-}
	<i>plätku, plätkweş</i>	‘increased’		{pletk- ^Ø / _{sa} -}
	<i>ltu, ltuweş</i>	‘gone out’	<i>ʔ/e</i> -preterite	{lə ^{cə} / _{te} -}
	<i>puttuwermeñ</i>	‘ascended’?	prt. unknown	—
	<i>plutku</i>	‘?’		—
	<i>sänuweş</i>	‘bound’		—
	<i>snätkü, snätküweş</i>	‘pervaded with’		—
	<i>yku, ykuweş</i>	‘gone’		suppletive

[+red] (final -w)	<i>kekuwer</i>	‘poured’	s-preterite	{kew- ^Ø / _{sa} -}
	abs. <i>rerūwermem</i>	‘opened’		sbj. {r ^e / _{əw} -}
	<i>šešu</i> , abstr. <i>šešuwer</i> ,	‘eaten’	ə a-root prt.	{šawá-}
	abs. <i>šešuwermem</i> ,		(a-grade;	
	<i>šešwormem</i>		lyāka-type)	
(no final -w)	<i>tetarku</i> , abs.	‘turned’	prt. unknown	–
	(<i>te</i>) <i>tärkuwermem</i> ?			
	<i>peprukwešä</i>	‘leapt over’		–

not formed from the preterite

Although the preterite participle is very close to the preterite, there are some cases where the preterite participle cannot be derived from the preterite in a straightforward way, even if cases of suppletion are left out of consideration. Mostly, this is because the preterite has a suffix that is not found in the preterite participle.

The largest group consists of *a*-preterites. As already mentioned above, these behave like *x|Ø*-roots and form participles of classes 1) and 2). Some examples are: prt. {kaccá-} ~ *kakāccu* ‘(become) glad’, prt. {klēwšá-} ~ *keklyaušu* ‘heard’, prt. {nāwtəšša-} ~ *nanautäššo(š)* ‘destroyed’, prt. {šárka-} ~ *šešširku* ‘surpassed’. A special case are the ə|*a*-root preterites with *a*-grade (the *lyāka*-type) because these have a final *a* in the prs.-sbj. and the prt., but *not* in the preterite participle: prt. {plāwá-} ~ abstr. *pepālywor* ‘complaint’, prt. {laká-} ~ *lyelyaku* ‘seen’, prt. {lawá-} ~ abs. *lyelyuwormem* ‘having rubbed’, prt. {šawá-} ~ *šešu* ‘eaten’.

Of the additional instances with a difference between preterite and preterite participle, only the ‘əy-subjunctives form a category; the other instances are all isolated. Next to ‘əy-subjunctives we find derived *a*-preterites, and according to the rules described above, we would expect a prt.ptc. without that *a*, i.e. sbj. {laláy-} → prt. {laláy-a-}, but prt.ptc. ***lalalyiyu* {la-lal-áy-əw}. In fact, not only the prt. suffix {a}, but also the sbj. suffix {‘əy} is dropped in the preterite participle: *lalalu*, -oš. This pattern is well established, but in most cases the palatalisation remains: [+pal] *aukšu* ‘grown’, *aušu* ‘dwelled’, *kekaršu* ‘cut’, *kekalypoš* ‘stolen’ vs [–pal] *āklu* ‘learned’, *lalālu* ‘exerted’.

The isolated šša-prt. of *yam*- ‘do’, i.e. an *a*-prt. irregularly derived from the present instead of the subjunctive, is not matched by the prt.ptc. *yāmu*, -oš, which rather requires the *s*-preterite that we would expect next to the *x|Ø*-root subjunctive {yam-}.

təs- ‘put’, perhaps the most irregular verb of the language, forms a prt.ptc. *tättāu*, which is clearly related to the subjunctive {təttá-} and not to the preterite {tē/_əs-^Ø/_{sa}-}.

The two ‘ə/e-preterites {ləc^ə/_{te}-} and {yā^ə/_{ke}-} are matched by participles without palatalisation, i.e. *ltu*, -uweš and *yāku*, -oš, whereas preterites to ‘ə/e-subjunctives always have palatalisation (cf e.g. *keklyaušu* cited above). Possibly, the preterite participle is not derived from the preterite stem in these cases, but both are derived from the root.

The causative preterite {śánmya-} of 'bind' is completely isolated in having an extra *y* in its preterite stem. This *y* is not found in the corresponding participle śeśśanmu.

2.10 SUMMARY

In view of the large number of different patterns for both languages, only some general tendencies can be observed here. As stated in 2.1.2 (p 23), the central questions of this chapter were 1) whether the subjunctive can be seen as a second present and 2) whether the subjunctive stem can be equated with the preterite stem. For the first question, the most important point to be addressed was to what extent the suffix inventories of present and subjunctive are identical.

stem inventory

In Tocharian A, primary presents are essentially root presents without root-final *-ā* next to derived *ā*-subjunctives and *ā*-preterites; the other types discussed in 2.6.8 (p 107) are generally found in suppletive patterns and are of no relevance to us. Derived presents are formed with the suffixes *-'ä/a-*, *-a-*, *-s'ä/sa-*, *-näs'ä/sa-*, and the infix <n> (see 2.6.9, p 110; marginal *-näs'ä/sa-* can be discarded for the moment). Derived subjunctives are formed with the suffixes *-'ä/a-*, *-a-*, *-ñ'ä/a-*, *-äs'ä/sa-*, *-ññ'ä/a-*. Focusing on primary subjunctives, it serves our purpose now best to include zero-derived subjunctives from primary preterites, which yields the following types: root preterite-subjunctives (both to *x|Ø-* and *x|ā-* roots) and *'ä/a-* and *ññ'ä/a-* subjunctives. So far, the formation inventory shared by the present and the subjunctive consists only of the *x|Ø-root* type and the suffixes *-'ä/a-* and *-a-*. The latter could perhaps be eliminated on the basis of one subjunctive form, 2sg.act. *nakāt* (compared to 2sg.mid. *nkatār*), that shows that the actual shape of the subjunctive suffix is *-Ø/a-*; this would set it apart from the present suffix, because the latter is only *-a-*. Additional shared stems are found as soon as we include zero presents: *x|ā-root* preterite-subjunctives with *x|ā-root* presents (2.6.10, p 115). Although the root presents (both of the *x|Ø-* and the *x|ā-* type) blur the delimitations of the stem inventories in an important way because the same formations are salient among the subjunctives, it must be stressed that root presents are small in number. In any case, shared *suffixes* are strikingly few.

In Tocharian B, primary presents all end in *-'ä/e-* (2.7.7, p 128), that is, we find verbs in *-ss'ä/ske-*, *-'ä/e-* and *-ññ'ä/e-*, but since these elements are found in all stems of the verb, they can hardly be called suffixes. Derived presents are generally formed with one of the suffixes *-'ä/e-*, *-e-*, *-o-*, *-s'ä/se-*, *-ss'ä/ske-*, *-näs'ä/ske-*, or *-ññ'ä/e-*, or the infix <n>. Primary subjunctives are all identical to the root (2.6.4, p 98), but unlike the present this root never ends in *-'ä/e-*. Leaving *na*-subjunctives out because they are marginal and often irregular, derived subjunctives show the suffixes *-'ä/e-*, *-Ø/e-*, *-'äy-* and *-a-* (2.7.2, p 120, 2.7.6, p 126). So far, the formal inventories of present and subjunctives are sharply distinct, both for primary and derived formations: the only shared suffix is *-'ä/e-*. Only in zero-formations is there a significant overlap: there are

present-subjunctives both with root-final *-a* and with the element *-ʔ/e-*. However, these can be analysed as primary presents with zero-derived subjunctives: the suffixes they are formed with are *not* used to derive presents as well as subjunctives, and they do not prove that the present and the subjunctive stem make use of the same formal inventory.

subjunctive vs preterite stem

In both languages, subjunctive and preterite stems are closely related indeed: most differences are not found in suffixation, but in other morphological distinctions, principally gradation, palatalisation and accent.

In Tocharian A, suffix contrasts between the preterite and the subjunctive are found with *ʔä/a-*, *a-*, and *ñä/a-* subjunctives derived from root preterites (2.6.6, p 99), and with *ā-* preterites derived from subjunctives ending in *-ʔä/a-* and *-ññä/a-* (2.6.3, p 96). In addition, causatives show the peculiar suffix *-äsä/sa-*, which derives subjunctives from the root (or perhaps from the reduplicated preterite). Only a minor set of the root preterite-subjunctives are of the *x|Ø*-type: in that class, the preterite stem differs from the subjunctive in showing its element *-sā-* in some forms (2.6.7, p 105), and often it has *a*-grade and initial palatalisation vs *ä*-grade without initial palatalisation in the subjunctive. All other root preterite-subjunctives are of the *x|ā*-type. Whereas for *ā|ā*-roots the stems are completely identical, *ä|ā*-roots show initial palatalisation only in the preterite, and root gradation in both stems, but with a complementary distribution (2.5.2, p 56).

In Tocharian B, the only suffix contrast between preterite and subjunctive is found in *ʔ/e-* and *Ø/e-* subjunctives derived from root preterites (2.7.2, p 120), and in derived *a*-preterites (2.7.3, p 121). In addition, the large class of causatives shows a peculiar pattern of a subjunctive that is zero-derived from the present, while the present is derived from the root (or perhaps from the preterite stem) with the suffix *-ssʔ/ske-*. In all other cases, the subjunctive and the preterite are not differentiated by a suffix, but by their inflexion (2.7.4, p 122). For instance, *s*-preterites show an element *-sa-* in part of their forms, which is not found in the corresponding subjunctive. Further, the subjunctive has root accent, whereas the preterite has suffix accent, like in the deduced minimal pair 1pl.sbj. *aunäm** /áwnəm/ 'we will hit' vs 1pl.prt. *aunam** /awnóm/. *ə|Ø*-root presents and subjunctives both show the root grades *e* and *ə*, but the distribution is slightly different (see 2.5.2, p 56). *ə|a*-root preterites and subjunctives show a double inflexion contrast: the subjunctive has root gradation and the preterite has initial palatalisation. Additionally, with *a|a*-root preterites and subjunctives they have in common that the subjunctive has initial accent and the preterite suffix accent, e.g. 1pl.sbj. *tākam* /tákam/ 'we will be' vs 1pl.prt. *takām* /takám/.

conclusion

With the help of zero-derivation as an analytical tool, the overlap between the inventories of the present and the subjunctive stems can be reduced considerably. Whereas the present has a large suffix inventory, that of the subjunctive is only limited, the subjunctive being mostly formed from the root. Thus, the subjunctive is a kind of present because of its endings, and not because of its stem.

The subjunctive and preterite stems are similar indeed: most differences are part of the inflexion, not of stem formation. These differences are not found in the domain of suffixation, but in gradation, palatalisation and accent. Tocharian B root preterite-subjunctives show great similarities between the $x|\emptyset$ - and $x|a$ -type, where the most important contrast between preterite and subjunctive is apparently the suffix accent of the former versus the root accent of the latter. In Tocharian A the situation is slightly different: whereas the $x|\bar{a}$ -type often shows no difference between preterite and subjunctive at all, the $x|\emptyset$ -root type is only marginal; evidently, it was replaced by categories where the contrast was better marked.

3 SYNTAX AND MEANING

3.1 INTRODUCTION

In order to establish the meaning of the subjunctive, its use in both languages will be investigated.

3.1.1 FORMER DESCRIPTIONS

In the grammar of Sieg, Siegling and Schulze (1931), all we learn about the meaning of the subjunctive is that there is a “Konjunktiv, der zugleich das Futurum vertreten muß” (p 324). Couvreur argued against the use of the term “Konjunktiv” because in his eyes it is too limited.

“Conversely, the term «future-subjunctive» is advisable because it denotes the double use of the form correctly. After all, it has a temporal (future) as well as a modal (subjunctive: voluntative, real condition, consequence and goal) meaning and presumably the second use has developed out of the first.” (1947: 73, translation mine)

The first serious account of the syntax of the subjunctive is that by Krause because he gives example sentences in order to prove his analysis (he discusses only Tocharian B).

“Der Konjunktiv steht in Haupt- wie in Nebensätzen mit der Funktion der Vermutung, Erwartung, Annahme, also der Ungewißheit, woraus sich die Funktion des reinen Futurs entwickelt hat, sowie als Jussiv.” (1952: 30)

Krause illustrates the main clause uses expectation and presumption, pure future and jussive separately, but for subclauses the reader has to extract the different uses from a couple of example sentences.

Lane, in his seminal paper about the formation of the subjunctive, takes an agnostic stand in matters of syntax, saying that

“the syntax of the Tocharian subjunctive has not yet been written. But we can say with confidence that one of the functions, perhaps the chief function of the so-called Tocharian subjunctive is to express futurity.” (1959: 158)

In a footnote he adds that “subjunctive” may not be a suitable term, and the relation between subjunctive and present should perhaps be evaluated differently:

“I do not mean to exclude the possibility that some other name may be more appropriate – even that a difference in aspect or ‘Aktionsart’ may better describe the relation between the two formal categories here.” (l.c.)

Unfortunately, he does not refer to Couvreur or Krause, so that we can only guess that he found their accounts unsatisfactory.

The first treatment of the syntax of the subjunctive in Tocharian A and B is that in the *Elementarbuch* (Krause and Thomas 1960: 180-181), which in many respects continues the work of Krause for Tocharian B alone. The principal division of the *Elementarbuch* is between the subjunctive “in rein futurischer Funktion”, which they think is found in both main and subclauses (p 181), and the one “in modaler Funktion” (p 180).

The latter category is subdivided into several smaller categories. In main clauses, they distinguish the uses 1) expectation and presumption, 2) voluntative and jussive, i.e. will and command (addressed to non-second persons), and 3) preventive prohibitive, i.e. (future) negative command. In subclauses, they find the subjunctive in 1) relative clauses, 2) local and temporal subclauses, 3) modal subclauses, i.e. in metaphors (see 3.3.9, p 208), and 4) conditional subclauses.

Although the *Elementarbuch* is an important step forward, it suffers from being too concise. For a number of uses, an example of only one language (A or B) is given, and they make no effort to avoid clear calques on Sanskrit constructions. Worse, they do not describe the categories any further, but just label them and list examples. For instance, no attempt is made at clarifying which relative clauses have a subjunctive and which have e.g. a present or an optative, and the same is true of the other subclause types.

In his *Introduction* and *Chrestomathie*, Pinault’s short characterisation is generally in line with the *Elementarbuch*, yet he adds a precision for subclauses, where the subjunctive has a “valeur éventuelle”, especially in conditional (“hypothétiques”) and temporal subclauses (1989: 124; 2008: 571). He further adds a functionally descriptive note on the expression of future tense:

“Le futur n’a pas de tiroir propre: il est exprimé en partie par le présent (avec valeur illocutoire d’une action future donnée comme certaine), surtout par le subjonctif, et aussi par une périphrase propre aux phrases négatives: gérondif II, exprimant la possibilité, avec présent de la copule (exprimée ou non).” (2008: 569-570; similarly 1989: 124-125)

Apart from these remarks about the meaning of the subjunctive as a whole, there are detail studies that treat the uses of the subjunctive and functionally neighbouring categories in subclauses. Iterative subclauses are treated by Thomas (1970), who shows that they are in the subjunctive when they have present reference and in the optative when they have past reference. Pinault (1997) contains a study of essentially

the conditional conjunctions TA *kuprene* and TB *krui*, both ‘if’,⁹³ but in passing he gives an overview of conditional types that is an excellent introduction to the subject.

Most of the descriptions mentioned above focus on the various uses of the subjunctive, and little effort is made to distinguish between the way the subjunctive is used and the semantic value it contributes. In other words, the focus is primarily on different contexts in which it occurs and much less on its inherent meaning. Nevertheless, Couvreur claims that the modal value has developed out of its future meaning and Lane suggests that futurity may be its chief function; conversely, Krause makes a very clear statement, claiming that all non-future uses can be unified as “uncertainty”, which is also at the base of the future meaning (see above).

Besides, there is one generalising notion about the function of the subjunctive, to my knowledge first voiced by Couvreur, and recurring from time to time, namely that the subjunctive is actually a perfective present formed to the preterite stem, the “normal” present being imperfective or progressive.

“The future-subjunctive [...] is originally a present (primary endings!) of the perfective preterite stem, hence (like in Slavic) the future meaning. Therefore, the future-subjunctive (perfective stem + primary endings) is the reversal of the imperfect in A (imperfective stem + secondary endings).” (Couvreur 1947: 73, translation mine)

Probably Lane’s feeling that the difference between present and subjunctive might rather be one of aspect or Aktionsart (see above) is to be interpreted along the same lines.

The most elaborated version of this idea is that by Winter, whose argument is essentially the same, “The so-called subjunctive is simply the nonpast of the punctual aspect” (1982: 9). Importantly, he further supported the aspect theory with the observation that present-subjunctives have a durative (or imperfective) Aktionsart. In other words, present-subjunctives are actually presents without a subjunctive, and since they are inherently durative (or imperfective), they do not have the punctual (or perfective) subjunctive next to them (most explicitly 1994a: 286-287, cf further Peyrot 2008c: 251).

Winter’s version seems to be accepted by Pinault (2008: 570), who adds yet another argument from the distribution of the different roots in cases of suppletion:

“La distribution des lexèmes dans les verbes supplétifs montre que le prétérit et le subjonctif ont la même valeur aspectuelle, celle de perfectif ou non-duratif, par opposition au présent.” (l.c.)

However valuable the notion of an imperfective present versus a perfective subjunctive and preterite may be, none of its defenders has shown that there is anything like an aspectual difference between present and subjunctive with examples from the

⁹³ Pinault argues for a different older meaning; cf 3.7.5 (p 314).

texts. Instead, all arguments adduced are morphological: they concern the present endings of the subjunctive and the close relationship between preterite and subjunctive stems versus the present stem (Couvreur), semantic properties of verbs with a present-subjunctive (Winter), and the root structure of suppletive verbs (Pinault). In fact, the only syntactic aspectual difference that is commonly acknowledged is the one between the imperfective imperfect and the perfective preterite (Thomas 1957; Pinault 2008: 569; see also 2.2.3, p 32).

As none of the proponents of the “aspect theory” has argued with syntactic arguments, it is far from clear where one should start a syntactic investigation of the problem. In my view, the aspect theory has only a morphological and historical value. Although I feel that the burden of proof rests with the proponents, I offer arguments against it at the end of this chapter (3.8.4, p 325); the whole matter is further left out of the description of the use of the subjunctive.

3.1.2 AIM

As pointed out in the preceding section, there are many unclear points in the description of the use of the subjunctive. Further, no systematic distinction between use and meaning has been made, nor have the different functions in main and subclause been unified. Tocharian A and B have always been treated together, thus obscuring the view on possible differences. Finally, the idea that the subjunctive is a perfective present is based on morphological arguments instead of syntax.

Thus, the aim of this chapter is

- a) to give a detailed description of the various uses of the Tocharian A and B subjunctives;
- b) to extract the meaning of the Tocharian A and B subjunctives from their uses and to give a unified account of their meanings in main and subclauses;
- c) to review any differences in meaning between the Tocharian A and B subjunctives;
- d) to investigate possible syntactic proof for the aspectual value of the Tocharian A and B subjunctives.

3.1.3 METHOD

Describing the use and meaning of a modal verbal form such as a subjunctive is not at all easy. The situation is a good deal worse if the language is dead, as in the case of Tocharian: there is no native speaker to explain meaning nuances and often even a general idea of the sense of a passage would be welcomed by many scholars of Tocharian. Strictly speaking, there is no way to be certain of the meaning of any piece of text: the writer has long passed away and even if we had a parallel text in another language we could not be completely certain about the identity level of the content.

For Tocharian, an additional problem is that there are hardly any texts that continue for more than a leaf: a whole lot have only a few complete sentences

without lacunae preserved (if we leave fragments with only isolated words or parts of words aside for the moment). All this means that for frequent grammatical phenomena it will mostly be possible to find a reliable sample of useful examples, but for less frequent forms or constructions it is not rare to eventually depend on only one or two good instances for an analysis. This in turn implies that the value of the conclusions may vary: if there are many instances, the level of certainty is much higher than if there are only a couple of them, and in the latter case it is sometimes necessary to be creative when it comes to finding arguments for an analysis.

Although one may often find oneself on the verge of despair, the whole undertaking is in fact by no means hopeless. Without doubt the most valuable help for interpreting fragmentary Tocharian texts are parallels in other languages. These come roughly in three variants:

- 1) Sanskrit originals for Tocharian texts translated from Sanskrit, or Sanskrit texts so close to those originals that they can be used as if they were originals;
- 2) Old Uygur translations of the Tocharian text;
- 3) parallel texts in other languages.

All these parallel texts have their peculiarities, also per individual text, but nevertheless it is possible to give short characterisations.

sub 1) Sanskrit originals are known for a limited number of texts in both Tocharian A and B. It is certain that many more texts were translated from Sanskrit, but those originals have not been identified yet, or, as in most cases, they have been lost. The problem with the text offering most bilingual matches, the Udānavarga, is that the language of the Tocharian translation is a demonstrably artificial “translationese” that is of limited value for many types of syntactic matters. If, however, the Tocharian text deviates from the Sanskrit in spite of its being very faithful to it in other respects, we can take this as an important indication for the rules of genuine Tocharian grammar. Finally, there are many parallel Sanskrit texts that are probably not the original the Tocharian was translated from,⁹⁴ and caution is always due when comparing a Tocharian text with a Sanskrit parallel.

sub 2) There is only one Tocharian text with an Old Uygur translation: the Tocharian A *Maitreyasamitināṭaka*, translated into Old Uygur as the *Maytrisimit nom bitig*.⁹⁵ Although many portions of the Tocharian A text are fragmentary, and many others are lacking altogether, whereas for the portions preserved we do not always have the Old Uygur text, this parallel text corpus is of inestimable value, radically improving our understanding of Tocharian A. The text genre of the Old Uygur is different, as it is running prose, whereas the Tocharian is conceived as a play with

⁹⁴ An example is the story of the last meal of the Bodhisattva before his enlightenment (B107), which has a close, but not exact match in the Saṅghabhedavastu of the Vinaya of the Mūlasarvāstivādin (Gnoli 1977: 109–110), cf Schmidt (2008) and Pinault (2008, especially 159–162).

⁹⁵ On (possible) other Old Uygur translations from Tocharian, cf Schmidt (2001), Peyrot (forth.e).

narrative intermezzi and many variegating songs,⁹⁶ which means that especially for lyric passages the Old Uyghur may deviate considerably. But even if the texts are parallel, the baroque literary style of the Old Uyghur, with many repeated synonyms and explanatory additions, may make it hard to compare the texts adequately. The advantage of all this is undeniable, however: the Old Uyghur translator generally understood the Tocharian perfectly and has made a serious effort to produce a good translation in “real” Old Uyghur. Consequently, the Old Uyghur is in principle reliable and calques on the Tocharian constructions are rare (Wilkens 2008: 426 adduces an interesting example).

sub 3) Parallel texts in other languages than Sanskrit and Old Uyghur are mostly in Chinese or Pāli, sometimes also in Tibetan. Only very rarely do these parallels give direct evidence for the meaning or function of a Tocharian form, and in most cases they can only clarify the general context. Although even the latter is often of great help, a pitfall is obviously that the parallels are indirect, as no Tocharian text is translated from Pāli, and no Tibetan from Tocharian. Chinese is a slightly different matter since we know that the translators of some Chinese texts spoke Tocharian. Although the translations themselves were probably made from Sanskrit or Prakrits, Chinese translations are sometimes remarkably close to the Tocharian version, which may suggest that both were translated from the same source. Especially Pāli is a clear opposite to this, as these texts are from a completely different Buddhist school and they can only rarely be used fruitfully. However, Pāli has the great advantage over Sanskrit that the texts are well preserved and studied, which makes their evaluation easier.

Once the gist of a passage is known and the philological work is done, the linguistic analysis can be undertaken. The essential problem is that often various different translations give a coherent interpretation and there is no objective way to verify which interpretation is correct. Although the number of translation possibilities is certainly increased because we are working with texts in a dead language, the essence of the problem is probably the difference between use and meaning, or between the effective sense of a form in its context and the inalienable kernel of it.

As an example of the difference between meaning and implicature (by-meaning or inference), Comrie gives the example *it's cold in here* (1985: 23). This sentence is normally used not just to state the temperature, but implies another idea, for instance that it is too cold, which should be changed. According to Comrie, the implicature can be cancelled, whereas the meaning cannot. For instance, *it's cold in here. please don't close the window, I enjoy the cold* is fine, but *it's cold in here. please don't close the window, it's hot in here* is incoherent. Then he continues,

⁹⁶ Winter's idea (1955: 18) that the “poems” we find in this text genre (and in others too, for that matter) are in fact songs seems to be generally accepted now (e.g. Pinault 2008: 400–401). Obviously, as readers of the texts, we cannot experience the songs as such, as there is no music to it: we read them as poems with a rigid metrical pattern.

“Although the principled distinction between meaning and implicature is crucial to a correct semantic analysis of linguistic items, carrying out the distinction in practice is by no means easy, since it often requires the construction of subtle situations to distinguish between the meaning of a form and its implicature.” (1985: 24)

One cannot but fullheartedly agree, all the more since any type of “construction”, even of less subtle situations, is of course impossible for Tocharian.

Nevertheless, the importance of this distinction can hardly be overestimated. For instance, how can we decide between future and voluntative meaning of the subjunctive in sentences like TA *waštäṣ lāñcam* ‘I leave (sbj.) the house’? In most contexts, both a future ‘I will leave the house’ and a voluntative ‘I want to leave the house’ seem to be possible interpretations. My approach to this problem is based on the assumption that a basic meaning cannot be self-contradictory, nor can it be contradictory to any inference without explicit marking. For example, if I could find an instance of the subjunctive where it is clear from the context that the “I” person does *not want* to leave the house, but is forced to do so and protests, the same *waštäṣ lāñcam* cannot, without explicit marking, at once mean ‘I do not want to leave the house’. If such contradictory instances were indeed found, I would conclude that ‘wanting’ and ‘not wanting’ cannot be part of the meaning of the subjunctive, but must be inferences based on context knowledge (implicatures).

In practice, examples are unfortunately seldom as clear-cut as they are in theory, and even if the general approach seems to be correct, the statistics may give a very ill-balanced picture. For main clauses, I investigate the relation between future uses and other uses bordering future, such as will, wish, expectation, and so on, by evaluating a number of possible modal sources. For instance, if indeed the subjunctive is voluntative in first person clauses (‘I want to leave’), the next question is of course if there is any relation between speaker or subject for other persons, too. Would ‘He leaves (sbj.) the house’ mean ‘I want him to leave the house’ or ‘He wants to leave the house’?

The possible modal sources that I consider are the speaker, the subject and the hearer; the first person is discussed separately because it unites speaker and subject. These are of course by no means all sources that are theoretically possible, but they are the ones that I have distilled from the various descriptions of the use of the subjunctive (see 3.1.1, p 155). Thus, the claim of voluntative use invites the question whether speaker or subject are a modal source, and so does that of jussive use. I have not found the uses promise or permission in those descriptions, but as there are actually quite seducing examples for these subcategories, too, I have included the hearer as yet another possible modal source.

Expectation and presumption, the other uses that have been mentioned in the literature, form no special research focus, as these are much more subtle than voluntative and jussive. I understand expectation as a subjective form of future in the sense that the speaker has *personal* reasons to think that a future event will take place. On the other hand, expectation is neutral as to whether the speaker wants the event to happen or not: we may expect good or bad weather without the one

expectation being more typical than the other. As a (linguistic) future event is always expressed by a speaker, pure non-subjective futures can probably only exist in contrast to subjective ones (a contrast certainly not there in Tocharian), i.e. a kind of special form where the speaker stresses that his reasons to think that the event will take place are *not* personal; on a certain level, however, such a claim must remain in vain, as the hearer is always dependent on the judgment of the speaker.

Presumption⁹⁷ is close to expectation, but here the focus seems to be on the process of inferencing from indications for a future event, and the uncertainty that results from it. In the same way as expectation, presumption is subjective, but in addition it has its element of uncertainty. Obviously, both expectation and presumption are only possible in situations where the speaker does not control the event. Thus, they are theoretically compatible with second and third person subjects, but with first person subjects only when the verb is without control: 'I will leave the house' cannot be an expectation or presumption of the speaker. Although it is my conviction that expectation and presumption are no components of the meaning of the subjunctive, they do not, in fact, lack grammatical form: especially Tocharian B has a rich system of particles, but Tocharian A is not devoid either (see 3.4.5, p 222, and 3.7.5, p 287).

The uses in subclauses are less controversial and the problems are of a different kind. The meaning of the subjunctive is often quite well recognisable, but the various uses are sometimes difficult to delimit. This does not necessarily mean that the categories do not really exist in Tocharian, and are only imposed: there are always some clear examples with overt marking at the basis. The fact that there are other examples that could belong to more than one category is actually strong evidence for the function of the subjunctive in those clauses. Apparently it could be used in different ways, and without explicit marking, it could be interpreted according to the respective context.

Perhaps the most salient function of the subjunctive in subclauses is conditionality. For the examples that I have collected, I have found two parameters helpful. The first parameter is the distinction between conditionals based on consequence on the one hand, and on inference on the other. Although "consequence" is not to be understood in a very strict sense as perhaps in physics, these conditionals connect two events of which the occurrence of the second is somehow dependent on the first (in Sweetser's terminology, the two events are related in the "content domain", 1990: 113-116). This dependency can be real causality, as in *If it rains, the streets get wet*, but

⁹⁷ I have chosen this term for Krause's "Annahme". He mentions both "Annahme" and "Vermutung", which in my understanding differ principally in how the presentation of the information is meant to be used: *Vermutung* is neutral, but *Annahme* suggests that the information is used for a follow-up. At the same time, *Annahme* is more neutral (empty, so to say) in its degree of certainty, whereas *Vermutung* has an inherent level of a particular half-certainty. I fear that differences of this kind are beyond the limits of philological feasibility in Tocharian.

it may also be much less strict, as in *If you go there, I will go with you*. In conditionals based on inference it is not the occurrence of the second event that follows from the first, but rather its truth (the events are related in the “epistemic domain”, according to Sweetser 1990: 116-117). In this type of conditionals, reversal of causality, for instance, is very common, as in *If the streets are wet, it has rained* (evidently, such a reversal is logically only valid with *if and only if* conditionals).⁹⁸

The distinction between consequential conditionals (based on consequence) and inferential conditionals (based on inference) is important because in English as well as in Tocharian the verb forms of the latter are much more variable than those of the former (Dancygier 1998, e.g. 25-29). In consequential conditionals, it turns out to be useful to distinguish generic, real, potential and unreal conditionals. Generic conditionals, which have no specific time reference, are in Tocharian formed with a subjunctive protasis and present apodosis, e.g. *If you do (sbj.) good deeds, you gather (prs.) merit*. Real conditionals, which are specific and have future reference, are formed with a subjunctive protasis and a subjunctive apodosis, e.g. *If you do (sbj.) good deeds, you will gather (sbj.) merit*. Potential conditionals denote possible but not very probable events, formed with an optative protasis and an optative apodosis, e.g. *If you did (opt.) good deeds, you would gather (opt.) merit*. Unreal conditionals denote purely imaginary events, expressed with a periphrasis of subjunctive gerund and imperfect copula in protasis and apodosis, e.g. *If you had done (sbj. ger. + ipf. cop.) good deeds, you would have gathered (sbj. ger. + ipf. cop.) merit*. Of course there are individual cases where these rules are difficult to apply, but as a general guideline they may be helpful. Compare the following scheme:

	Tocharian		English	
	PROTASIS	APODOSIS	PROTASIS	APODOSIS
generic	subjunctive	present	present	present
real	subjunctive	subjunctive	present	<i>will</i> -future
potential	optative	optative	past	<i>would</i>
unreal	sbj.ger+ipf.cop.	sbj.ger.+ipf.cop.	past perfect	<i>would</i> -perfect

A major pitfall in the study of Tocharian syntax in general is the real possibility that it is coloured by the syntax of other languages.⁹⁹ The first language to think of is obviously Sanskrit, the source language for many texts that were translated, and the model of many others that were recomposed, elaborated or adapted. Indeed, some

⁹⁸ Sweetser distinguishes yet a third type of conditionals in the “speech-act domain” (1990: 118-121). In this type, it is the relevance of the second event that follows from the first, e.g. *If it interests you, Dancygier and Sweetser (2005) treat this type extensively*. I have no reason to assume that this type did not occur in Tocharian, but I have found no instances in the corpus.

⁹⁹ It is characteristic of the philologist Werner Thomas that this problem seems never even to have occurred to him in an impressive number of syntax case studies; any linguist, I believe, would have been worried about this point in his position.

texts where the Sanskrit original is known show an astoundingly high level of syntactic matches, continuing well into the morphological domain. At the same time it is a relieve that those texts are also strange compared to other Tocharian texts, so that we can be certain that many texts are better, less literally translated. Of course, it is nearly impossible to verify to what extent the latter category of texts exhibits influence of Sanskrit constructions.

A much more delicate matter is that of the syntactic similarities between Tocharian A and B. As we know that Tocharian B has influenced Tocharian A in the script and in the lexicon, it is probably influence of Tocharian B on Tocharian A that caused these similarities, if they are caused by mutual influence at all (on this problem, cf in detail Peyrot forth.c).

Unfortunately, there is not much we can do about the problem of possible “calque syntax” when we do not have the exact models, e.g. the Sanskrit original of a Tocharian text. In some cases, infrequent and deviating constructions can indeed be attributed to calquing, but in most instances we will have to describe the language as it is attested in our corpus: after all, we can hardly exclude that Sanskrit patterns had become linguistically real features of the language. I will therefore be very careful with the “calque argument”: as long as it cannot be shown that one construction is due to calquing and another is not, the argument remains ad hoc. And even if a particular construction is a calque, it was apparently acceptable according to Tocharian grammar: if we are not in the centre of Tocharian grammar, we must nevertheless be in the margins, not outside.

3.1.4 PRESENTATION OF EXAMPLES

There is no essential difference between the presentation of the Tocharian A and B passages, and it conforms to general usage:

- a (narrow) transliteration is only given if necessary: in principle, Fremdzeichen are rendered by their regular counterparts, virāma is not indicated etc, and square brackets for uncertain readings are left out;¹⁰⁰
- round brackets indicate restorations in the Tocharian text, as well as in the translation;
- square brackets in the translation are used for non-trivial additions that make the English readable;
- “.” indicates an unreadable part of an akṣara; “–” an unreadable akṣara; “///” the damaged edge of a manuscript.

My deviations from the traditional system concern the presentation of the manuscript lines, the metrical structure, and the addition of interlinear glosses.

¹⁰⁰ I do not use arcs over non-syllabic vowels, as these are sufficiently marked by their subscript, i.e., *kr_{ui}*, not *kr_ui*.

It is often extremely important to know whether it is certain that a clause or a sentence is complete, or whether it might continue left or right of the respective margin. Therefore, I have inserted line breaks in square brackets in subscript in the Tocharian text, e.g. “[a1]”, “[a2]” etc, giving the reader the opportunity to see whether words from a sentence may be missing or not. If I know or suspect that a clause is not complete, I indicate this with three dots “...” in the translation.

A very large portion of the corpus is metrical and this is vital for the identification of syntagms and the recognition of the size of lacunae. Moreover, the language of metrical passages is often slightly different, most of all – obviously – in word order. Therefore I have indicated the metrical structure of a passage as much as possible, as well as the fact that it is metrical when I could not identify the metre. The system used is the same as that of Sieg, i.e. when he noted “4 x 14 Silben im Rhythmus 7/7”, I give the metre as “4 x 7 | 7”, with further subdivision, e.g. “(4+3 | 4+3)”. In the Tocharian text itself, I indicate the caesurae with the symbol “|”, but only between the larger units, e.g. between two units of 7 syllables, while the smaller subdivision into 4 and 3 is left unmarked. The end of pādas (strophe lines) is noted with the strophe number and a letter indicating the pāda in square brackets *after* the pāda (e.g., “[1a]”, “[1b]”, etc), since the last pāda is usually followed by the strophe number (of the strophe just *preceding*) in the Tocharian text itself (it is taken as self-evident that e.g. 1 in the Tocharian text is pāda 1d).¹⁰¹

For convenience, I have chosen to give interlinear glosses for all Tocharian and Old Uyghur examples in this chapter, even if this is relatively space-consuming. By contrast, examples in other chapters are not glossed because the argumentation will be possible to follow without. To save some space nevertheless, not *all* grammatical information is given in the glosses. For instance, I do not indicate voice for verbs, or gender for adjectives and pronouns; however, I hope to give all information needed for an understanding of the use and meaning of the relevant verbal forms.

The presentation of the Old Uyghur parallels to the Tocharian A Maitreya-samitināṭaka is sometimes problematic, too. One difficulty is that they are scattered over a large number of publications so that the transcription used is not uniform; worse still, Tekin’s edition (1980) contains only transliterations. I have chosen to uniformise following the system used by Röhrborn (1977etc), which has gained general acceptance in the last decades.¹⁰² The grammatical terminology follows Erdal (2004), and for Old Uyghur grammar in general, the reader is referred to that book.

Another difficulty concerns the transliteration and transcription conventions for Old Uyghur, which confusingly deviate from, and interfere with those for Tocharian. The main difference is the usage of brackets: square brackets are used for restorations in text and translation, and round brackets are used to add defective vowels, i.e. vowels that are assumed to have been there but are not written in the

¹⁰¹ On Tocharian metrics in general, see especially Pinault (2008: 397-409).

¹⁰² In checking and uniformising the Old Uyghur, I have made extensive use of VATEC.

manuscript, mostly *a* and *ä*. As a compromise between the Tocharian and turkologist systems, I have left the defective vowels in brackets, but put them in subscript. Thus, turkologist *t(ä)ŋri t(ä)ŋrisi burhan* ‘Buddha, god of gods’ has become *t(_ä)ŋri t(_ä)ŋrisi burhan*.¹⁰³ In a word [*bur*]han the first syllable is completely restored (for Tocharian A, the same would be noted e.g. (*ptā*)*ñkāt*).

3.1.5 STRUCTURE

The general lay-out of the chapter is as follows. I describe the use of the subjunctive in main clauses first, then that in subclauses, and then there is a section on other uses, which includes periphrastic constructions, the present-subjunctive and particles etc. Tocharian A and B are treated separately, so that the main clauses are discussed in 3.2 (p 166) for Tocharian A and in 3.5 (p 231) for B, the subclauses in 3.3 (p 191) for A and in 3.6 (p 250) for B, and the other uses in 3.4 (p 216) for A and in 3.7 (p 276) for B. The last section of the chapter, 3.8 (p 321), contains conclusions about the use of the subjunctive, a comparison between Tocharian A and B, and a discussion of its meaning.

3.2 THE TOCHARIAN A SUBJUNCTIVE IN MAIN CLAUSES

In main clauses, the subjunctive principally denotes future events. In some cases, other readings seem possible too, such as intention, wish or promise, but in others such interpretations can be excluded with certainty because the event has negative consequences for the subject, the speaker or the hearer. In the following sections, I will first present a literal translation from Sanskrit (3.2.1, p 166), and then I will explore the relation between the event on the one hand and the subject (3.2.2, p 167), the speaker (3.2.4, p 171), and the hearer (3.2.5, p 174) on the other, in order to show that the subjunctive does not entail any necessary relation with any of these (the first person is discussed in 3.2.3, p 168). I will continue with samples of “neutral” predictions (3.2.6, p 175). The section on main clauses is concluded by an overview of moods in (rhetorical) questions (3.2.7, p 177), and by sections on neighbouring verbal categories, i.e. the present (3.2.8, p 180), the optative (3.2.9, p 185), and the imperative (3.2.10, p 189).

3.2.1 BILINGUALS

The number of literal or almost literal translations from Sanskrit must be considerable, but of course they can be of use only if the Sanskrit original is known. Only in a modest number of cases do we have good matches, and the yield for a first

¹⁰³ I.e., the manuscript has *tnkry tnkrysy pwrq'n* v.s., without <'> in the sequence <tnk>, but that spelling is thought to stand for *tāñri tāñrisi burhan*.

outlook on the use of the Tocharian A subjunctive in main clauses is not impressive. However, the following example is very clear, and intriguing at the same time. The Sanskrit future *haniṣye* ‘I will beat’ is rendered by a Tocharian A subjunctive, as we expect, but the preceding *gamiṣyāmi* ‘I will go’ by a present. In other words, the Sanskrit would have to be translated as a neutral ‘I will go and beat’ (as below), but the Tocharian with ‘I am going to Benares and I will beat the drum [there]’. In a literal translation such a deviation is significant, of course, and the issue will return in 3.2.9 (p 185). The speaker, i.e. the Buddha, can probably use the present for ‘go’ because he is about to go, but he will arrive in Benares only after his journey, so that his action there is necessarily in the subjunctive.

A218a3-4¹⁰⁴

(*bārāṇas*)*y(a)c yām* † *koṣṭam oṅkraci* † *kumpāc* – [a4] /// §
Benares:ALL go:1SG.PRS beat:1SG.SBJ immortal drum

sāspārtwṣūnt : 14¹⁰⁵

turn:PRT.PTC

‘I am going to Benares and I will beat the drum of immortality; (I will turn the wheel of the law) that has (not) been turned (in the world before).’

Uv21.6

bārāṇasīm gamiṣyāmi [a] *haniṣye* *’mṛtadundubhim* [b]

Benares go:1SG.FUT beat:1SG.FUT drum.of.immortality

dharmacakramṃ pravartayiṣye [c] *lokeṣv aprativartitam* [d]

wheel.of.the law turn:1SG.FUT world:LOC.PL not.turn.ed.before

‘I will go to Benares and beat the drum of immortality; I will turn the wheel of the law that has not been turned in the world before.’¹⁰⁶

3.2.2 SUBJECT

Although they are not frequent, examples of subjunctive events with positive effects for the subject (other than the first person) can be found next to others that will turn out negatively. This shows that the subjunctive does not entail a wish or an intention of the subject: the attitude of the subject is of no importance for the use of the subjunctive.

In the following example the subjunctive is used in a clause where the king gives his permission to leave the house (and become a monk), at last. In this context, a rendering by English *will* yields an unnatural translation.

¹⁰⁴ Verse: metre 4 x 5 † 5 † 8 † 7 (5 † 5 † 4+4 † 4+3).

¹⁰⁵ Restoration after Sieg and Siegling (1933: 171); for the context, cf Beal (1883: 170).

¹⁰⁶ Bernhard (1965: 280). Cf Hahn (2007: 73).

A74b6

/// *tärkor* *tāṣ* *mäskite* *läñcäṣ* *waṣtäṣ*
 permission be:3SG.SBJ prince:GEN leave:3SG.SBJ house:ABL
 ‘... the prince will have permission: he may leave the house.’¹⁰⁷

In the example below, however, a permission reading can easily be excluded, since the event is clearly not to the advantage of the subject:

A77b6

camäṣ *wä(tkoṣ* *tāpärk)* *cem* *ānäs* *nāmṣtsuṣ*
 DEM:PL separate:PRT.PTC now DEM:PL miserable be:PRT.PTC
wekanträ *tāśsi* *kälkeñc* :
 break.down:3PL.SBJ where.PCL go:3PL.SBJ
 ‘Having been separated, they have now become miserable and will fall apart.
 Where will they go?’¹⁰⁸

3.2.3 FIRST PERSON

First person subjunctives, in which of course subject and speaker coincide, are well presented in the corpus. As it turns out, most examples concern events that are in some way profitable for the first person and the subjunctive forms can in many cases receive an intentional reading. Accordingly, we usually find a voluntative form in the Old Uyghur parallels to the Maitreyasamitināṭaka. However, there are also some examples where Maitreya predicts something about himself in a “neutral” way; in those cases, we find Old Uyghur futures. In conclusion, we can say that the intentional reading so often found is only based on inference: the fact that a neutral prediction exists next to it makes it unlikely that “intention” is an inherent feature of the subjunctive.

In most cases, a Tocharian A subjunctive corresponds to an Old Uyghur volitional in the Maitreyasamitināṭaka.

MY1.8b4

/// *ṣñikek* *nu* *waltsurā* *weñam* *päklyoṣ*
 however but in.short tell.1SG.SBJ listen.IPV.SG
 ‘However, I will tell in short. Listen!’¹⁰⁹

¹⁰⁷ Cf Sieg (1952: 23).

¹⁰⁸ Cf Sieg (1952: 16).

¹⁰⁹ Cf Ji (1998: 57).

MayH1.14b20 = MayT13b10-1

[nä] y_(e)mä t_(a)vrak yıgvırak ayu beräyin
 what and quick concise say:CVB BEN:VOL.1SG
 'I just want to tell something in short.'¹¹⁰

In the following example, the additions in the Old Uyğur make it especially clear that the first person has the wish to carry out the event. In other words, the intentional reading is obvious, even though the volitional suffix in the Old Uyğur is lacking because the sentence is presented as unfinished and ongoing:

MY2.2a8¹¹¹

/// (käşşina)c † waştäş läñcam : 1
 teacher:ALL house:ABL leave:3SG.SBJ
 'I will leave the house towards (the Buddha), the teacher.'¹¹²

MayH2.2b2-5

amtı t_(ä)ñri [b3] bahşı boşuyu y_(a)rlıkazun kim t_(ä)ñri t_(ä)ñrisi [b4]
 now god teacher let:CVB RESP:3SG.VOL that god.of.gods
 burhanka yakın barıp ävig barkıg [b5] kodup
 Buddha:DAT close go:CVB house home give.up:CVB
 toyın bolup
 monk be:CVB
 'Jetzt möge der göttliche Lehrer zu erlauben geruhen, daß ich nahe zum
 Göttergott Buddha gehe und, Haus und Habe aufgebend, Mönch werde und
 ...!'¹¹³

In the passage below, princess Bhadrā announces her selection of a husband; although this follows an agreement with her father, it is clearly her own wish to do so:

A66b1

(tä)my(o) ñuk p(e)nu svayamparam tsälporäş şñi mänwā
 therefore I:F too svayamvara:LOC be.freed:ABS REFL will:PERL
 pats yāmmār
 husband do:1SG.SBJ
 'Therefore I too will choose¹¹⁴ a husband for myself in the svayamvara, free and
 according to my own will!'¹¹⁵

¹¹⁰ Cf Geng and Klimkeit (1988: 102-103), Tekin (1980: 51), Yüsup, Xoǰa and Qämbiri (1988: C, 137) and Wilkens (2008: 428).

¹¹¹ Verse: metre 4 x 7 † 7 † 4 (4+3 † 4+3 † 4).

¹¹² Cf Ji (1998: 75).

¹¹³ Geng and Klimkeit (1988: 120-121).

The following example is more complex because the first person expresses a wish involving his own death, a thing not usually desired. However, within a Buddhist context, the speaker, Bādhari, will be relieved from his sorrows when he dies. Moreover, the wish element could also apply to the rest of his life, as the “clinging-free mind” is clearly desirable (in any case, the Old Uyghur has a volitional as if the speaker wanted it).

MY1.4a8

tāpärk nāṣ tṣäṣṣ aci sne tränklune pälsäkyo ṣom wlalune
 now I DEM:ABL EMPH without clinging mind:INS only death
pälko tām
 look:PRT.PTC be:1SG.SBJ

‘Now I will, from this point on, with a clinging-free mind look forward only to (my) death.’¹¹⁶

MayT12a23-25

amtı bu ...rU bu tünte [a24] ... iligsiz tutugsuz
 now DEM DEM night:LOC without.clinging without.clinging
köñülin [a25] ...Um küñümin küdäyin
 mind:INS day:POSS.1SG await:VOL.1SG

‘Now I will ... tonight ... with a clinging-free mind await my ... [last] day.’¹¹⁷

A prediction by Maitreya about his own future is apparently more neutral, and in the Old Uyghur it is rendered not by a voluntative, but by a future form. Otherwise, first person futures are rare in the Old Uyghur Maitrisimit. See also A257a2 (3.2.6, p 175).

A257a3

wlesm(ām puttiṣparṣṣ)ām sne (lyutār) w(ā)km(tsām) wl(es)
 work:PRS.PTC Buddha.rank:ADJ unsurpassable excellent work
k(a)lkam nervān(ām)
 go:1SG.SBJ nirvāṇa:LOC

‘Carrying out the unsurpassable and excellent task of the Buddha rank I will go to the nirvāṇa.’¹¹⁸

¹¹⁴ Literally: ‘make’.

¹¹⁵ Cf Sieg (1952: 9).

¹¹⁶ Cf Ji (1998: 37). Possibly, the combination *pälko nas-* means something different from ‘look’, i.e. ‘wait for’ or ‘look forward’: a literal ‘will have seen’ gives a strange sense here and is contradicted by the Old Uyghur translation with *küd-* ‘wait’.

¹¹⁷ Cf Tekin (1980: 49).

¹¹⁸ Cf Pinault (1991: 148).

MayH11.11a11-13

burhanlar işin tüzü tükäti işläp kalısız
 Buddha:PL work completely completely work:CVB complete

nirvanlag uluška b_(a)rgay m_(ä)n
 nirvāṇa:ADJ part:DAT go:FUT 1SG

‘I will completely carry out the task of the Buddhas and go to the domain of the complete nirvāṇa.’¹¹⁹

3.2.4 SPEAKER

In most cases, the stand of the speaker towards the event is not very clear: often it can be understood as a promise, without it being clear whether the speaker himself has a positive or a negative attitude towards the event. Only in a limited number of cases do we find clear wishes. As above, I argue that the wish element is inferential and not an inherent component of the subjunctive: there are other examples where a wish is impossible and so it is cancelled out as a feature of the meaning of the subjunctive.

The first example is of an isolated type, but its interpretation is very clear already on the basis of the Tocharian A alone, and it is further strengthened by a close Old Uyghur parallel with a 3sg. volitional in *-zUn*:

A342¹²⁰a5-b1¹²¹

oñi cmołši rākṣat(s sām) † kalkaṣ lo ymār caṣ
 human birth:ADJ rakṣasa DEM go:3SG.SBJ PCL quickly DEM
ypeyāṣ : 1
 country:ABL

‘This rākṣasa of human birth must quickly go away from this country.’¹²²

PeOuīb.b5-7[56-58]

inčip körksüz körklüg yäk mähizlig ayag kılınč_(l)g
 so ugly appearance yakṣa appearance:ADJ bad deed:ADJ
bram_(a)n ketip barzun biziñ uluś balıkta
 brahmin leave:CVB go:3SG.VOL we:GEN country town:LOC
turmazun
 stay:3SG.VOL

‘Then the brahmin with the ugly appearance, with the looks of a yakṣa and of bad deeds must go away, and not stay in our country and our towns!’¹²³

¹¹⁹ Cf Geng, Klimkeit and Laut (1988: 332, 352).

¹²⁰ To be turned over.

¹²¹ Verse: metre 4 x 7 † 7 (4+3 † 4+3).

¹²² Cf Sieg (1952: 36); Schmidt (2001: 305).

For the following short expression we a precise parallel in A214a3 = MY2.1a7, and probably it was a fixed formula. It introduces an announcement of the speaker, and a rendering by English *will* is strange.

A9a5

tāṣ nātkis kāsor tāṣ
 DEM lord:GEN knowing be:3SG.SBJ
 'The lord should know this.'¹²⁴

In the following example, some women have requested permission to listen to the preaching of the Buddha, and it is granted to them. Therefore, the first clause below is not a real wish (it is strange to wish something that is granted already), but still the event is desirable for the women.

MY3.3a8

naṣ nu mā nākāntār tāmyo picākk ats was
 blame but not reproach:3SG.SBJ therefore go:IPV.PL EMPH we
mārkampal klyo_[b1](ssī)
 law hear:INF
 'He will not put blame on us, let us therefore go to listen to the law!'¹²⁵

MayH3.3b8-11

antag ogurī tāñii bolgay.. biziñä y_(e)mā nom nomlayu
 so opportunity possibility be:FUT we:DAT and law preach:CVB
y_(a)rlıkagay.. anın köni baralım nom ešidālim
 RESP:3SG.SBJ therefore truly go:1PL.VOL law hear:1PL.VOL
 'This will be an opportunity; he will deign to preach us the law! Let us therefore truly go and listen to the law!'¹²⁶

The next example is more complicated because the first person expresses a peculiar wish, namely to be killed. In the context of the story, however, this is understandable, as the mother (the speaker) does not want to live to see her own son killed by the same *caṇḍālas* (low caste executioners). A further difficulty is that *kāwe(ñc)* (or just *kāwe*, as both forms are possible) is probably to be understood as the content of the wish: possibly its usage here is rather to be compared with the final subclauses

¹²³ Cf Hamilton (1986: 5, 10).

¹²⁴ Cf Sieg (1944: 12); Pinault (2008: 261).

¹²⁵ Cf Ji (1998: 157), who translates slightly different "May he not put blame on us!"

¹²⁶ So rather than with Geng and Klimkeit (1988: 181; cf further 180, 182-183) desiderative "Möge dies eine Gelegenheit (Hend.) (für uns) sein, möge er auch uns die Lehre zu predigen geruhen!" (their reference to von Gabain 1974: 134, §270 is misleading because her desiderative is not a bare volitional form, but a combination of volitional forms with a past or future copula, *ārti* or *ārgāy*).

under 3.3.10 (p 209). Anyhow, that *kāwe(ñc)* in some way expresses her wish is of course clear from the preceding *ākāl* ‘wish’.

A56b1¹²⁷

k_upre(n)e šakk ats raryu ci | pkanā ñy ākāl
 when really EMPH give.up:PRT.PTC you come.about:IPV.SG my wish
caṇḍālāñ | ñuk¹²⁸ neš kāwe(ñc : 1)
caṇḍāla:PL I:F before kill:3PL.SBJ
 ‘If he is really given up by you, fulfil my wish [that] the caṇḍālas will first kill me.’¹²⁹

In the next two examples, a wish of the part of the speaker is excluded. In the first, the speaker is the mother of Mūgapakkha who is about to be killed by the caṇḍālas on the order of her husband: she mourns her son’s fate. In the second, the word for ‘danger’ is partly restored, but the context is clear enough: the speakers certainly mention something that is bad for them.

A56b3¹³⁰

(oñi c)m(o)l m≠ āryu praṣtaṃ | kāreyo kākōṣtu nkatār [1a]
 human birth not long time:LOC sword:INS kill:PRT.PTC perish:3SG.SBJ
 ‘... human birth ... before long he will perish, killed by the sword.’¹³¹

A395b1-2

klänkoš kausašim wärtam ane tsalpar • tmāš
 argue:PRT.PTC Kausala:ADJ forest:LOC into be.freed¹³²:3PL.PRT then
āsuk ysi kuc yārmaṃ mā campār pälskānt kupre
 further go:INF any measure:LOC not can:3PL.PRT think:3PL.PRT whether
śrāvasti riyam anne ymās šakk atsek — — — — — (ñā)_[b2]tse
 Śrāvasti town:LOC into go:1PL.PRS really EMPH danger
klāš-ām tāmyo cam kausašim wärt āssuk mā
 bring:3SG.SBJ-PL.SUFF therefore DEM Kausala:ADJ forest further not
katkar
 cross:3PL.PRT

¹²⁷ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

¹²⁸ So to be corrected for *nuk* in the manuscript; the mistake may have to do with the ligature with *ñ*: <ñnu> instead of <ññu>.

¹²⁹ Cf Sieg (1952: 19).

¹³⁰ Verse: metre probably 4 x 7 | 8 (apparently 3+4 | 3+5) or 8 | 7.

¹³¹ Cf Sieg (1952: 19).

¹³² Here obviously in a slightly different meaning ‘get through, enter’.

‘... (so) arguing they entered the Kausala forest. Then they could by no means go any further and thought, «Will we enter the town Śrāvasti? Certainly ... (this road) will bring danger on us!». Therefore they did not cross the Kausala forest any further.’¹³³

3.2.5 HEARER

If the hearer has a special interest in the event expressed by the subjunctive, it is often a positive one: the speaker makes a promise to the hearer or gives permission for something.

A typical fixed expression is *tāṃne tāṣ* ‘so it will be’. Of course it is literally a promise, but without doubt its meaning was bleached out and ‘yes madam; yes sir’ or the like would perhaps be a more appropriate rendering in English. In the example below, it seems to correspond to Skt. *tathā*, literally ‘so’, but used in the sense of ‘yes; alright’.

A59b6

/// (*brā*)*mnāśī* *śwātsi* *pāk* *pyām* || *tāṃne tāṣ* *wewñurāṣ*
 brahmin:GEN.PL food piece do:IPV.SG so be:3SG.SBJ say:ABS
tmāṣ unmādaya(ntī) ...
 then Unmādayantī
 ‘«Give¹³⁴ the brahmaṇas a piece of the food!» Having said, «so it will be!»,
 Unmādayantī ...’¹³⁵

A typical promise is the following, which is preceded by a request in the imperative. This example is interesting because otherwise the verb ‘give’ is especially frequent as a present used for a future action near at hand.

A341a3¹³⁶

paṣ-ñi *klyomiṃ* *śwātsik* *caṃ* : 89
 give:IPV.SG-1SG.SUFF noble food something
kuḷyi *weñā-ṃ* *em-ci* ///
 woman say:3SG.PRT-3SG.SUFF give:1SG.SBJ-2SG.SUFF
 ‘«Give me, o noble one, something to eat!» The woman said: «I will give you
 [something], ...»’¹³⁷

¹³³ Restoration and translation after Thomas (1957: 127).

¹³⁴ Literally: ‘make’.

¹³⁵ Cf Skt. (Hanisch 2005: 1, 116, lines 5-7): ... *unmādayantīm uvāca | bhadre svayam brāhmaṇān pariveṣayeti | sā tatheti pratiśrutya ... pariveṣayitum upacakrame* || ‘... and asked Unmādayantī to attend to his guests. She said she would and promptly set about serving them refreshments.’ (Khoroché 1989: 89).

¹³⁶ Verse: metre a: 5 | 5 | 5 | 5, b: 8 | 7 | 7 (4+4 | 4+3 | 4+3), c: 5 | 5, d: 8 | 7 (4+4 | 4+3).

The next example is not a promise because the speaker cannot determine or control the event, or at least so it seems. Nevertheless, the event is clearly to the advantage of the hearer and the speaker is reassuring him.

A79a3

/// *oñkālmāñ ñātse mā kleñc(i)*
 elephant:PL danger not bring:3PL.SBJ:2SG.SUFF
 'The elephants will bring you no distress.'¹³⁸

With the word for 'permission' preceding, the next example can confidently be classified as a permission, after the son has insistently requested his father the king for permission to leave the house and become a monk.

A81a3

tārkor tāś-śi māškit plāc w(aštāš) ///
 permission be:3SG.SBJ-2SG.SUFF prince leave:IPV.SG house:ABL
 'You will have permission, prince. Leave the house!'

3.2.6 NEUTRAL PREDICTION

A substantial number of future subjunctives can be classified as predictive: in the large corpus of the Maitreyasamitināṭaka, we naturally find several passages relating the advent of the future Buddha Maitreya and connected events. As Maitreya himself also appears in the nāṭaka, he is sometimes addressed about his future actions and even tells about them himself. Consequently, the third person is best represented among predictives, but the second and first person are attested, too. All three regularly correspond to *gAy*-futures in the Old Uyghur, which is especially striking for the first person: in the first person, the Tocharian A subjunctive is normally not predictive, and it corresponds much more frequently to an Old Uyghur volitional.

Below, I give a third person predictive subjunctive, followed by two second person predictives, and then one first person.

A288a6¹³⁹

šome metrāky(āp) | klyoseñc mārkaṃpal | tsālpeñc
 some Maitreya:GEN hear:3PL.SBJ law be.freed:3PL.SBJ

¹³⁷ Cf Chinese (Chavannes 1910-34: II, 249): "«Noble femme, faites-moi l'aumône d'un peu de nourriture.» «Je vous en donnerai, dit la femme; mais gardez-vous d'en faire part à ces deux démons affamés.»"

¹³⁸ Cf Sieg (1952: 13), whose deontic "sollen dir nicht Not bringen" can be discarded.

¹³⁹ Verse: metre usually 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4? | 4+3), but the unit of 8 is one syllable short in this pāda.

klopä(ntwäş) yomneñc † puttişparnac vyākārit : [1c]
 sorrow:ABL reach:3PL.SBJ Buddha.rank:ALL prophecy
 ‘Some will hear Maitreya’s law, be redeemed from sorrow [and] reach the
 prophecy of the Buddha rank.’

MayH1.6a28-30

... tıñlayu kanınčsız nomlug y(a)r[ıgka tğin]gäylär .. amarı
 hear:CVB not.tiring law:ADJ doctrine:DAT obtain:FUT.PL some
tüz-kärinčsiz burhan]¹⁴⁰ kutıña alkış bulgay[lar]
 incomparable Buddha rank:POSS.DAT praise reach:FUT.PL
 ‘They ... will obtain the word of doctrine, never tiring to listen to. Some will reach
 the praise of the incomparable Buddha rank.’¹⁴¹

A25a6

(ā)rkišo(şş)i(s) s(e)m (wa)ste pākār tāt
 world:GEN protection refuge manifest be:2SG.SBJ
 ‘You will appear as help and stay of the world.’¹⁴²

A258a7

tāt şakkats tu tanā (şärki)
 be:2SG.SBJ certainly you here after
 ‘You will certainly appear (in the world) hereafter.’¹⁴³

MayT185a1-3

kälmiş ayagka tğimlig köni [a2] tüz tuyuglı burhan
 come:PTC reverence:DAT worthy true complete enlightened Buddha
yer-suvda [a3] b(ā)lgürgäy s(ā)n
 world:LOC appear:FUT 2SG
 ‘... als [so-]gekommener, verehrungswürdiger, vollkommen wahrhaftig erleucht-
 eter Buddha wirst du in der Welt erscheinen.’¹⁴⁴

A257a2

///t tām pūk(i)s dakşinak
 be:1SG.SBJ all:GEN worthy.of.gift
 ‘... I will be (a monk), worthy of gifts for all.’¹⁴⁵

¹⁴⁰ Geng and Klimkeit read [*burhan*]; Yüsüp, Xoǵa and Qämbiri (1988: c, 126): *b[urhan]*.

¹⁴¹ Cf Geng and Klimkeit (1988: 76-77).

¹⁴² Sieg (1944: 29).

¹⁴³ Geng, Laut and Pinault (2004: 73-74).

¹⁴⁴ Cf Tekin (1980: 217).

¹⁴⁵ Pinault (1991: 147).

MayH11.11a6-8

*bol[gay]*¹⁴⁶ *m(ā)n kop kamag tɪn[ag]larn_(i)η tüz.gärinčsiz dentari*
 be:FUT I all all being:PL.GEN incomparable monk:POSS
 'I will be the incomparable monk of all beings.'¹⁴⁷

In the following example, it is less certain that we have to do with a prediction, but it remains a good possibility. Alternatively, but less likely, I think, pāda 1d could have to be taken together with 1c, as a postponed final clause.

A21b2-3¹⁴⁸

pkāmār māntak šälyp sāt wär † pälkār kăššim šñy
 bring:IPV.SG self oil warm water see:IPV.SG teacher REFL
ašänyo : [1c]
 eye:DU.INS
šl/ oko ašām tāke(ñci † šl/ o)ko tās-ši
 with fruit eye:DU be:3PL.SBJ/2SG.SUFF with fruit be:3SG.SBJ-2SG.SUFF
oñi cmol : 1
 human birth
 'Bring oil and warm water yourself, and look at the teacher with your eyes. Your eyes will be succesful and your human birth will be succesful.'¹⁴⁹

3.2.7 QUESTIONS

Rhetorical questions deserve a special treatment because they show a bewildering range of moods: subjunctive, preterite participle with subjunctive copula, present, and optative. Although it is difficult to classify all examples with confidence, and certainly impossible to grasp all nuances, it seems feasible indeed to discover some patterns.

A nice pair of subjunctive and present sentences with 'say' is the following. In the first example with a subjunctive clause, the words have not been said yet and the subjunctive can be understood as a future. In the second example with a present clause, the speaker comments on what he has just said and denies being a liar, i.e. the present can be taken to refer to a steady trait of his character, and to be tenseless in a way. Otherwise, we could take the present as referring to a situation that still holds at the moment of speaking, i.e. although in a strict sense the words have already been spoken, they are still actual.

¹⁴⁶ In view of several exactly parallel *gAy*-futures preceding and following, the restitution *bol[gay]* in the Old Uygur passage is certain.

¹⁴⁷ Cf. Geng, Klimkeit and Laut (1988: 332, 352).

¹⁴⁸ Verse: metre 4 x 7 † 7 (4+3 † 4+3).

¹⁴⁹ Sieg (1944: 25).

MY2.2a5

klyom ṽpādhyā kuc śkaṃ māk weñam
 noble teacher what and much say:1SG.SBJ
 'Oh noble teacher, why would I say much?'¹⁵⁰

MY1.6b5

kṽyal śkaṃ smale trāṅkāṃ
 why and lie say:1SG.PRS
 'And why should I be telling a lie?'¹⁵¹

MayH1.12b13 = MayT11a11-12

kačan nāṇ āzök sözlāmāči m(ā)n
 when INDF lie say:NEG.FUT.PTC 1SG
 'I will never tell a lie.'¹⁵²

The difference between the following two examples is difficult to establish: in both cases, the speaker does not know what to do. Probably, *yal tākiş* 'should be done' with a gerund plus an optative copula has a stronger reference to what *ought* to be done, rather than for instance what the speaker wants or deems best to do: both the optative and the present gerund imply this nuance. *kuc ypam* with a simple present is surprising, but it just cannot mean 'what am I doing?'.

A10a4

māt yal tākiş
 how do:PRS.GER be:3SG.OPT
 'How should one act?'¹⁵³

A343a1

kuc ypam
 what do:1SG.PRS
 'What should I do?'

The following two examples have different verbs, but since they concern the same situation, the parallelism is nevertheless instructive. In the first example with a subjunctive clause the speaker has received a kind of ultimatum and the event (of not having the requested money) lies in the future. In the second example with an optative clause the speaker is demanded to hand over the money immediately (cf

¹⁵⁰ Cf Ji (1998: 75). The Old Uyğur parallel is not completely literal: MayH2.2a23 *tözün bahşı öküş sav k(ā)rgäk ärmäz* 'Edler Lehrer! Viele Worte sind nicht nötig.' (Geng and Klimkeit 1988: 120-121).

¹⁵¹ Cf Ji (1998: 45).

¹⁵² Cf Geng and Klimkeit (1988: 282-283), Tekin (1980: 48); cf also von Gabain (1974: 116).

¹⁵³ Cf Sieg (1944: 13).

tāpärk ‘now’), which is impossible because he does not have it. In other words, the subjunctive clause is about an unrealistic event but probably expresses only future tense, whereas the optative clause is about an impossible event, and this is indeed expressed by that optative form. The Old Uyghur confirms this as it has a neutral *gAy*-future as a translation for the subjunctive, but a periphrasis with *uk-* ‘can’ (*ukay* is {*uk-gAy*}) for the optative.

A215a6 = MY1.6b5

sām okāk tinār mā škam naš-ñi kuc škam pāñ
 one including gold.piece not and be:3SG.PRS-1SG.SUFF how and five
kānt tāke-ñi
 hundred be:3PL.SBJ-1SG.SUFF

‘I do not have a single gold piece – how am I going to have five hundred?’¹⁵⁴

MayH1.12b14-15 = MayT11a12-14

bir bakar tāñinčä ädim tavarım
 one copper.coin like possession:POSS.1SG possession:POSS.1SG
yok beš yüz bakar takı kanta bulgay
 there.is.not five hundred copper.coin and where find:FUT

‘I do not have as much property as one copper coin – where will one find five hundred copper coins?’¹⁵⁵

MY1.6b2 = A215a3¹⁵⁶

pāñ kšāñ mā neñc tāpärk kucäš | pāñ kānt tñ
 five copper.coin not be:3PL.PRS now how five hundred you.GEN
āyim tināräs : 1
 give:1SG.OPT gold.piece:PL

‘[I] do not [even] have five copper coins – how could I now give you five hundred gold pieces?’¹⁵⁷

MayT117+10b16-18

m(ä)n beš bakar tāñinčä tavarım yok kanta takı
 I five copper.coin like my.possession there.is.not how and
beš yüz yaratmak berü ukay m(ä)n
 five hundred gold.piece give:CVB can:FUT 1SG

‘I do not [even] possess five copper coins – how will I be able to give you five hundred gold pieces?’¹⁵⁸

¹⁵⁴ Ji (1998: 45).

¹⁵⁵ Cf Geng and Klimkeit (1988: 282-283, “Wo sollte man denn 5[00] Kupfer[münzen] finden?”); Tekin (1980: 48).

¹⁵⁶ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

¹⁵⁷ Cf Ji (1998: 45).

¹⁵⁸ Cf Tekin (1988: 47).

3.2.8 COMPARED TO THE PRESENT

Although the subjunctive principally denotes future tense in main clauses, and future tense is expressed by the subjunctive, the present may also be used for events that take place after the moment of speaking. The traditional view is: “das toch. Präsens bezeichnet eine als sicher vorgestellte zukünftige Handlung” (Krause and Thomas 1960: 177; cf also Pinault 2008: 569). Even if this is not untrue, it lacks precision because it invites the question what “presented as certain” means, especially in contrast to other future types. In view of the large number of predictive subjunctive futures, which are definitely meant to depict future events as certain, the truth must be a bit more complicated.

In search for a demarcation between future present and future subjunctive I have noticed that the present may be used:

- in (rhetorical) questions concerning future events;
- to denote events that take place at the moment of speaking and continue in the future (clauses that fulfil this condition are typically negated);
- in clauses where the difference between moment of speaking and event is so small that a present can be used without causing any ambiguity: especially frequent are verbs of motion (‘go’, ‘go out’, ‘come’), verbs of speaking (‘say’ etc), and ‘give’;
- with the verb ‘become’, which has no subjunctive and carries an element of future in its lexical meaning.

Although this list is not exhaustive, it gives a good impression. I will illustrate these uses below. Whether the Old Uygur, which usually has an aorist when the Tocharian A has a future present in the *Maitreyasamitiṇāṭaka*, is of great help, is difficult to decide, but the correspondences are not always neat, which suggests that the Old Uygur translation is, in this respect too, not slavish.

In the example below, we find a beautiful contrast between present and subjunctive, definitely denoting the same event. In between, the speaker, the Buddha, thinks of two persons just deceased, and five still alive, and he decides to teach the law to the latter.¹⁵⁹ Possibly, the question renders the event vague and indefinite so that the present can be used, but when the matter is decided, the event has become concrete and a subjunctive is required.

¹⁵⁹ Compare the Chinese translation of Āśvaghōṣa’s *Buddhacarita* in the English translation of Beal (1883: 167-168): “then he deeply pondered, who first should hear the law; he thought at once of Ārâḍa Kâlâma and Udraka Râmaputra, As being fit to accept the righteous law; but now they both were dead. Then next he thought of the five men, that they were fit to hear the first sermon. [...] so went he on towards Benares”.

A217a5-6¹⁶⁰

pālskāt pūk knānmām | ke maltw āksisam | lyāklām
 think:3SG.PRT all knowing who:GEN first teach:1SG.PRS fine

kuṣpā_[a6](rām krant mā)rkampal | [9a]
 deep good law

‘The omniscient thought, «Whom do I first teach the fine, deep [and] good law?»’¹⁶¹

A217a7¹⁶⁰

cesmy ākṣiññam krant | mārkampal metās | ūrbilwāyāṣ
 they:GEN teach:1SG.SBJ good law set.out:3SG.PRT Urubilvā

bārānasyac | [9d]

Benares

‘«To them I will teach the good law!», [and] he set out from Urubilvā towards Benares.’¹⁶¹

Although the question in the example below is embedded, it is probably the reason why a present can be used for an event that with utmost certainty lies in the future, and not even necessarily a close one.¹⁶²

MY3.1a7

tāmyo tāpärk skamat prakāštär kupre aśši ptāñkāt kāṣṣi
 therefore now always ask:3SG.PRS whether PCL Buddha teacher

lo kumnä_[a8](ṣ)

PCL come:3SG.PRS

‘Therefore she now keeps asking whether the Buddha, the teacher is about to arrive.’¹⁶³

MayH3.1a24-25

anın basa basa mini [t(ā)ṣri] t(ā)ṣrisi burhanag ayıtgalı ıdur
 therefore again again me god.of.gods Buddha ask:GER send:AOR

‘Deshalb schickt sie mich wiederholt, um nach dem [Götter]gott Buddha zu fragen.’¹⁶⁴

An event that starts or has started at the moment of speaking and continues in the future is illustrated below. In this case, the verb is negated; for the same pattern with-

¹⁶⁰ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3); the last seven syllables of the pāda are not cited.

¹⁶¹ For translation and restoration, cf Sieg and Siegling (1933: 168-169).

¹⁶² Cf the different construction a bit further on, where both languages have a participial construction: MayH3.5a4 *kālgüsin* ~ MY3.4b5 *śmāl naṣ*.

¹⁶³ Cf Ji (1998: 145).

¹⁶⁴ Geng and Klimkeit (1988: 172-173).

out negation, one could imagine a change of state that takes place at the moment of speaking.

MY2.7a8¹⁶⁵

kāṃtsāsamtrā maṅk | mā śkaṃ ypamās omāskem [3a]

confess:1PL.PRS fault not and do:1PL.PRS evil

‘We confess our sin[s]; we will do no more evil.’¹⁶⁶

MayH2.8a16-18

amti bilinür biz kántü yazokumuznı büküntä inaru ayag

now confess:AOR we self sin:POSS.1PL today:LOC further bad

kılınčtın tıdılur biz

deed:ABL be.held:AOR we

‘Now we confess our own sins. As from today we will be held from bad deeds.’¹⁶⁷

The following unique example must have a present because death is as close as it can come without the dying one no longer being able to speak; the inference that this is not the *exact* moment of dying is completely unavoidable.

MY1.10a8¹⁶⁸

(wä)lläsmār : 1

die:1SG.PRS

‘I am dying.’¹⁶⁹

MayH1.16b4-7

kim kop munta kutgardaçı [b5] kutlug tınlıg körmädin alku

that all misery:LOC redeem:PRS.PTC blessed being see:NEG.CVB all

adata arılaguçı [b6] adınçıg t(ä)ḡri t(ä)ḡrisi burhanag körmädin

danger:LOC intercede:AG.N special god.of.gods Buddha see:NEG.CVB

ölür [b7] m(ä)n

die:AOR 1SG

‘Ohne das glückliche Wesen, das (die Lebenden) aus aller Not befreit erblickt zu haben, ohne den wunderbaren Göttergott Buddha, der aus allem Unglück befreit, erblickt zu haben, sterbe ich.’¹⁷⁰

¹⁶⁵ Verse: metre 4 x 5 | 7 (5 | 4+3).

¹⁶⁶ Cf Ji (1998: 103).

¹⁶⁷ Cf Geng and Klimkeit (1988: 140-141) and especially Wilkens (2008: 426).

¹⁶⁸ Verse: metre of unequal pādas, a, b: 8 | 7 | 6, c: 9 | 9, d: 7 | 6 (a, b: 5+3 | 4+3 | 6, c: 9 | 9, d: 4+3 | 6).

¹⁶⁹ Cf Ji (1998: 65).

¹⁷⁰ Cf Geng and Klimkeit (1988: 110-111) and the corrections by Wilkens (2008: 428; cf Yüsüp, Xoja and Qämbiri 1988: c, 154).

Below, an example of a verb of motion is given. Of course, ‘leaving the house’ is lexicalised as ‘becoming monk’, but the movement may still have been tangible (however, the second verb, *artmār*, is of course no verb of motion).¹⁷¹ The Old Uyghur is only helpful for the general content, but at least it has an aorist among parallel aorists (parallel examples are found in MY2.12b2, MY2.12b5).¹⁷²

MY2.14b1¹⁷³

waštāš lantunā | cwā sārky āšānik | waštāš läntsam
house:ABL left:ALL you:ALL after venerable house:ABL leave:1SG.PRS

nāš | artmār tñy ārtunt wkām [1a]

I attach:1SG.PRS your attached way

‘Following you, who has left the house, oh venerable one, I am leaving the house;
I am embracing the way that you have embraced.’¹⁷⁴

MayT18a6-7

toyin bolup v(a)žanpat [a7] kīlu tāginūr m(ā)n
monk be:CVB ordination do:CVB HUMIL:AOR 1SG

‘Ich werde Mönch werden und ehrerbietigst die Weihe dazu vollziehen.’¹⁷⁵

An example with the verb ‘say’ is the following, where the event is very close, but not identical to the moment of speaking.¹⁷⁶

MY3.4a7

trānkām-ci

say:1SG.PRS-2SG.SUFF

‘I am telling you this, « ... ’¹⁷⁷

Perhaps we have to understand the next example in the same way; i.e. the act of the invitation is presented as taking more time, and the fact that it is not exactly at the time of speaking can lead to no misunderstandings.

¹⁷¹ In the next line we find a fragmentary parallel: MY2.14b2 /// *·is yām semāšwam* ‘I am going to the protector of ...’ (Ji 1998: 135).

¹⁷² The parallel passage MayH2.16a26-b3 (Geng and Klimkeit 1988: 285-286) ≈ Turpan18a1-7 is not exact; parallel aorists are found in MayH2.16a27, a28, a29, a30, b3.

¹⁷³ Verse: metre of unequal pādas, a: 5 | 5 | 5 | 5, b: 8 | 7 | 7, c: 5 | 5, d: 8 | 7 (b: 4+4 | 4+3 | 4+3, d: 4+4 | 4+3).

¹⁷⁴ Cf Ji (1998: 135).

¹⁷⁵ Cf Tekin (1980: 58).

¹⁷⁶ This particular phrase lacks in MayH3.4b10.

¹⁷⁷ Ji (1998: 161).

MY3.11b1¹⁷⁸

konaṃ wu nāṣ piṣṣaṅkāṣ | śāmnās kenmār
 day:LOC two I community:ABL monk:PL call:1SG.PRS
piṃ(twātac :) [1c]
 alms:ALL

‘Today I am inviting two monks from the community (to give them) alms ...’¹⁷⁹

MayT118b4-9

anın amtı kamag bursaṇ kuvragdın iki toyın ötünü
 therefore now whole community community:ABL two monk request:CVB
tāginür m(ā)n
 HUMIL:AOR 1SG
 ‘Therefore I am now respectfully inviting two monks from the whole community.’¹⁸⁰

In the next example future reference is ascertained by the content, but nevertheless a present is used. In this case, it is probably the verb *māsk-* ‘become’, which has no subjunctive, that can do with a present because the future meaning is already part of its lexical semantics. Alternatively, it might be the question that makes a subjunctive superfluous (see above). In any case, the Old Uyghur deviates in having a future instead of an aorist.

MY3.5a6

/// kupre aśśi sām praṣṭ māskaträ • äntāne ṇuk caṣ wsālṣi ṇemi
 when Q DEM time be:3SG.PRS then I DEM garment:ADJ jewel
putti(śparāṃṣi)

Buddha.rank:ADJ

‘When is the time going to be, when I ... with the rank of Buddha ... this jewel of a garment ...’¹⁸¹

MayH3.5b10-13

ol antag öd kolu kačan bolgay [b11] ärki .. kim m(ā)n bu ton
 DEM such time time when be:FUT Q that I DEM garment
ärdinimin burhan [b12] č(a)kr(a)v(a)rt elig hannıñ kädmišin
 jewel Buddha cakravartin king king:GEN put.on:PTC

¹⁷⁸ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

¹⁷⁹ Ji (1998: 193).

¹⁸⁰ Cf Tekin (1980: 74-75) and Erdal (2004: 529). The sentence continues: *kim küntämäk māniñ ävimtä ašanunlar .. mān y(e)mä küčüm yetmişčä tapınp azunlug azuk* ‘damit sie täglich in meinem Hause speisen, und ich will (sie), soweit meine Kraft reicht, verehren und [mit] irdischem Mundvorrat [versorgen] ...’ (cf Clauson 1972: 264).

¹⁸¹ Ji (1998: 165).

köräyin [b₁₃] *ärđi*

see:1SG.VOL be:PRT

‘Wann wird wohl jene Zeit sein, da ich sehen werde, daß der Buddha, der *cakra-vartin*-König, dieses Juwel von Gewand anzieht?’¹⁸²

3.2.9 COMPARED TO THE OPTATIVE

In main clauses, the Tocharian A optative is always modal: it has a deontic value, expressing either the speaker’s wish that the subject carries out an event, or the speaker’s opinion that the subject should carry it out for some external reason. It seems that the regular negation is, in both uses, the prohibitive negation *mar* rather than the “normal” negation *mā*. In Old Uyghur, we may find volitional forms, but more often than not periphrases are used, which give more insight in the different nuances of the Tocharian A optative forms.

The examples below are clear wishes. The first is rendered with a volitional form in the Old Uyghur, albeit with an infinitive with a volitional copula. In the second example, it is used with the respective auxiliary *yarlıka-*, ca. ‘deign to’, which probably does not follow from the wish function, but neatly goes together with it, since wishes are often addressed to or expressed about people higher in rank (as in this case).

MY2.7b¹⁸³

/// (klyo)m † *şakkats śmimträ cwaśśāl şyak* : [3c]

noble certainly come:1PL.OPT you:COM together

kärsimäs saṃsār † tsälpimäs puk klopäntwäş : 3

know:1PL.OPT saṃsāra be.freed:1PL.OPT all sorrow:ABL.PL

‘... oh noble one, may we definitely come together with you, may we understand the saṃsāra and be freed from all woes!’¹⁸⁴

MayH2.8a21-23

ažun ažunta sizni birlä tusuşup sansardın ozmakım(_i)z

existence existence:LOC you together meet:CVB saṃsāra:ABL flee:INF.1PL

bolzun

be:3SG.VOL

‘Mögen wir in allen Existenzformen mit Euch zusammentreffen und aus dem Saṃsāra entfliehen!’¹⁸⁵

¹⁸² Geng and Klimkeit (1988: 188-190).

¹⁸³ Verse: metre 4 x 5 † 7 (5 † 4+3).

¹⁸⁴ Ji (1998: 103).

¹⁸⁵ Geng and Klimkeit (1988: 140-141).

MY3.6b2

(tä)myo eṃtsitār caş ñom kälywäts kārūnik kәşşi
 therefore seize:3SG.OPT DEM named famed compassionate teacher
 wasaṃ tuñkiñlu(neyo)
 we:LOC love:INS
 ‘May he therefore take it, the renowned compassionate teacher, (out of) love for us.’¹⁸⁶

MayH3.6b16-17

anı amtı y(a)rlıkančuči biligin biziñä amranma_[b17]kın tutup
 DEM now compassionate wisdom us:DAT love:INST take:CVB
 kädä y(a)rlıkazun
 put.on:CVB RESP:3SG.VOL
 ‘Jetzt möge er geruhen, mit Barmherzigkeit und mit Liebe zu uns (ihn) zu nehmen und anzuziehen!’¹⁸⁷

In the following wish we find two optative forms, one negated with *mar*, the other positive. The Old Uyghur translation has a second person volitional that also serves as imperative, but need not imply a significant difference in the strength of the wish.

MY2.15a2¹⁸⁸

mar was märsit tskitār-äm ! puk klopäntwäş : 2
 not.PROH we forget.OPT.2SG pull.out:OPT.2SG-PL.SUFF all woe:PL.ABL
 ‘May you not forget us, may you deliver us from all woes!’¹⁸⁹

MayH2.17a7-8 = MayT18b20-21

ol ödün bizni y(e)mä unitmañ
 DEM time us and forget:NEG.VOL.2SG
 ‘At that time do not forget us!’¹⁹⁰

Strictly speaking, the following expression is a wish, too, but of course in practice it is rather obligative because of the negative content of the wish; we can probably equate the opt. *täkiş* with the volitional *bolzun*.¹⁹¹

¹⁸⁶ Cf Ji (1998: 169); his permissive interpretation “Therefore he may take it” is wrong.

¹⁸⁷ Geng and Klimkeit (1988: 192-194).

¹⁸⁸ Verse: metre 4 x 7 ! 7 ! 4 (4+3 ! 4+3 ! 4).

¹⁸⁹ Ji (1998: 139).

¹⁹⁰ Cf Geng and Klimkeit (1988: 164-165), Tekin (1980: 59).

¹⁹¹ The fixed formula *hişt täkiş* also occurs A254b3, MY1.4b8, MY.N3a8 = A295a4-5, which are not cited in this study.

MY3.3b4

hišt tākiṣ ṣtākkrukkešši ku(sne) ///
 shame be:3SG.OPT denouncer:GEN.PL who
 ‘Shame be on the denouncers,¹⁹² who ...’¹⁹³

MayH3.3b28-30

yeritmiṣ bolzun ol bagragu ṣaki[b29]lar sözlämiṣ
 reproach:PTC be:3SG.VOL DEM alms.begging¹⁹⁴ Śākya:PL say:PTC
savlar .. kim biziṇā inčā tep [b30] tedilär
 words that us:DAT so say:CVB say:3PL.PRT
 ‘Getadelt werden mögen jene (noch) der Leidenschaft (verhafteten) Śākya-(Jüng-
 linge) wegen ihrer Worte, die sie zu uns sagten.’¹⁹⁵

Typical obligative optatives are found in the prescriptive verses that conclude the Prātimokṣasūtra of the Sarvāstivādins. The first example is positive, the second, a citation from the Udānavarga, is negative; both render a Sanskrit optative.¹⁹⁶

A353b5

/// yā(ṣ śuk kākmurā)ṣ : tāmnek ṣukṣaṣ riṣak¹⁹⁷ kālkiṣ : 4
 ...:ABL juice take:ABS just.so village:ABL wise go:3SG.OPT
 ‘... taking the juice [away], just so the wise should go [away] from the village.’

Skt.

yathāpi bhramaraḥ puṣpād varṇagandhāv aheṭhayan
 like+EMPH bee flower:ABL appearance.and.fragrance not.harming
paraiti rasam ādāya tathā grāmāṃ muniś caret 4
 fly.away:3SG.PRS juice taking.away so village wise go:3SG.OPT
 ‘Like the bee flies away from the flower, taking the juice without damaging the
 appearance and the fragrance (of the flower), [so] the wise one should go out of
 the village.’¹⁹⁸

A354a5

kapśiñño śkaṃ omäškeṇ mar yāmiṣ
 body:INS and evil not do:3SG.OPT

¹⁹² TA *ṣtākkrukkešši* is a hapax legomenon: its translation is based on this Old Uyghur parallel.

¹⁹³ Cf Ji (1998: 157).

¹⁹⁴ According to Tekin (1980: 186).

¹⁹⁵ Geng and Klimkeit (1988: 182-183).

¹⁹⁶ The Sanskrit text of Uv7.12 is corrupt, the opt. *kuryāt* being the result of a wrong sanskritisation of an original participle **kuvve* (Bernhard 1965: 160), but this has no bearing on the correspondence between the Tocharian A and the Sanskrit.

¹⁹⁷ So to be corrected for *rik* in the manuscript.

¹⁹⁸ Cf Schmidt (1989: 75, 78).

Uv7.12b

kāyena caivākuśalaṃ na kuryāt
 body:INS and/evil not do:3SG.OPT
 ‘With the body one should do no evil either.’¹⁹⁹

In the following two examples, we see that the obligative optatives of Tocharian A are rendered by periphrastic constructions in the Old Uyghur version: in the first, it is the an irreal or past optative *kılayın ārdi*, in the second it is an irreal apodosis with the respective auxiliary *yarlıka*- ‘deign to’.

MY3.4a3

/// (*mārka*)*mpalşıṃ pruccamñeyis korpā · akām̐tsuneṣi pruccamñe*
 law:ADJ advantage:GEN in.return property:ADJ advantage
yāmi(mār)
 do:1SG.OPT
 ‘... in return for the advantages of the law, I should offer²⁰⁰ advantages in property.’²⁰¹

MayH3.4a24-26

amtı [a25] *bu m(ā)n y(e)mā nā ārsār ād tavar üzä*
 now DEM I and what be:COND possession possession by
sāvinč [a26] *utlı törüsinčä tapag udug kılayın ārdi*
 thanks thanks law:EQU reverence reverence do:1SG.VOL be:PRT
 ‘Sollte ich jetzt nicht mit Hab und Gut Verehrung (Hend.) darbringen gemäß dem Gesetz der Dankbarkeit (Hend.)?’²⁰²

MY3.7a2²⁰³

wārpitār-ñi wsitār-ñi | mācarṣi tun̐k
 receive:2SG.OPT-1SG.SUFF put.on:2SG.OPT:1SG.SUFF mother:ADJ love
pālko(rāṣ :) [1c]
 see:ABS

‘You should accept (it) from me, you should put (it) on because of me, having recognised the love of a mother.’²⁰⁴

¹⁹⁹ Uv7.12 *vācānuraṣī manasā susaṃvṛtaḥ* [a] *kāyena caivākuśalaṃ na kuryāt* [b] *etāṃ śubhāṃ karmaphāṃ viśodhayann* [c] *ārādhayen mārgam ṛṣipraveditam* [d] (Bernhard 1965: 160) ‘Guarding one’s words, keeping the mind well controlled, one should do no evil with the body either. These splendid paths of deed are to be purified in order to reach the path preached by the wise.’ (cf Chakravarti 1930: 82; Hahn 2007: 37).

²⁰⁰ Literally: ‘make’.

²⁰¹ Cf Ji (1998: 161), whose “I want to offer” is not completely adequate.

²⁰² Geng and Klimkeit (1988: 184-185).

²⁰³ Verse: metre probably 4 x 7 | 7 (4+3 | 4+3).

²⁰⁴ Ji (1998: 173).

MayH3.7a7-10

amtī [a8] *birök* *analarka* *sävinč* *utlu* [a9] *tägürmāk* *törü* *bar*
 now if mother:DAT.PL thanks thanks do:INF law there.is

ärsär *alp* [a10] *kädä* *γ(a)rlıkagay* *ärđi*
 be:COND take:CVB put.on:CVB RESP:FUT be:PRT

‘Wenn es ein Gesetz gibt, daß man den Müttern Dank (Hend.) abstatten müsse, dann würde es sich geziemen, (den Stoff) zu nehmen und anzuziehen.’²⁰⁵

For the use of the optative as a dubitative in questions, as below, cf further 3.2.8 (p 180).

MY.N3b1 = A295a5-6

k_uyal *mā* *näṣ* *śol* *raryuräṣ* *ksaluneyam* *kälkim*
 why not I life abandon:ABS extinction:LOC go:1SG.OPT
 ‘Why shouldn’t I, having abandoned life, go into nirvāṇa?’

3.2.10 COMPARED TO THE IMPERATIVE

The imperative is the pre-eminent deontic mood: it is principally used for commands. In positive commands, it does not interfere with the subjunctive, but the imperative cannot be negated, and the present and the subjunctive are used for negated commands instead. The former is used for events that have already started, i.e. “inhibitive”, and the latter for events that are still to take place, i.e. “preventive”. In Tocharian A, these uses are easily recognised because the inhibitive and preventive are construed with the special prohibitive negation *mar*.

Another common ground between subjunctive and imperative is the hortative use of the imperative. In its morphology, the imperative has only second person forms (singular, dual and plural; active and middle), but the dual and plural forms can be used to include the speaker.

The preventive is regularly formed with a second person subjunctive form and the negation *mar*, as in the example directly below.

A256a4²⁰⁶

āpas *pācräśši* † *śāsmunt* *slyi* *cam* *mar* *katkat* : [1b]
 ancestor:PL father:GEN.PL established rule DEM PROH cross:2SG.SBJ
 ‘Don’t break the rule established by ancestors and fathers!’²⁰⁷

²⁰⁵ Geng and Klimkeit (1988: 194-195).

²⁰⁶ Verse: metre 4 x 5 † 7 (5 † 4+3).

²⁰⁷ Cf Geng, Laut and Pinault (2004: 55) and Thomas (1958a: 304-306).

MY2.7b2

(kā)su sewāñ maśkaṃ yas umpar yac
 good son:PL PROH/and²⁰⁸ you:PL evil do:2PL.PRS
 ‘Good, my sons! Do no more evil deeds!’²⁰⁹

MayH2.8a26-27

ädgü ädū oğlanım ayıg yavlak kılmañ_[a27]lar
 good good son:POSS.1SG evil evil do:NEG.IPV.PL
 ‘Gut, gut, meine Kinder, Schlechtes (Hend.) tut nicht (mehr)!’²¹⁰

MY1.10a8

bādhari mar klopasu našt
 Bādhari PROH sorrowful be:2SG.PRS
 ‘Bādhari, do not be sorrowful!’²¹¹

MayH1.16b8-9

ämğäklig_[b9] busuślug bolmañ
 sorrowful sorrowful be:NEG.VOL.2SG
 ‘Do not be sorrowful!’²¹²

There are two isolated examples of *mar* followed by a third person subjunctive. Since we have no parallels for this construction, we cannot be totally certain about its meaning, but it is very probable that *mar* is responsible for the negative deontic content, whereas the subjunctive adds future reference.

A79a1

mar c(eş tālon)tāp cami nātse kleñc
 PROH DEM:PL miserable:GEN DEM:GEN distress bring:3PL.SBJ
 ‘They must not bring distress onto the miserable one!’²¹³

A230a5²¹⁴

krañcān mārkampal špärkāšlune mar ñi tšaṃ (nā)ntsū
 good law destruction PROH I:GEN DEM:LOC be:PRT.PTC
 tāṣ : [56b]
 be:3SG.SBJ
 ‘In this, may there not be destruction of the good law by me.’²¹⁵

²⁰⁸ *mar śkaṃ* is regularly fused to *maśkaṃ*.

²⁰⁹ Cf Ji (1998: 103).

²¹⁰ Geng and Klimkeit (1988: 140-141).

²¹¹ Ji (1998: 65).

²¹² Cf Geng and Klimkeit (1988: 110-111).

²¹³ Cf Sieg (1952: 13).

²¹⁴ Verse: metre usually a, c: 5 | 7 (5 | 4+3), b, d: 7 | 8 (3+4 | 5+3), but this pāda deviates in its subdivision.

The example below illustrates the hortative use of the imperative. The difference between this hortative and a first person plural subjunctive is probably that the hortative is a suggestion to do something together, whereas the 1pl. subjunctive is used when the action is already agreed. In other words, with a hortative, the speaker wants to involve the hearer in the event and the latter still has the option to refuse, whereas the 1pl. subjunctive is addressed to yet a third party (and the speaker assumes that the other part of the ‘we’ agrees and will not refuse to take part).

MY3.11a6 = A446b6

šu piṣ rṣiwataṃ saṅkrāmaṃc pines
 here come:IPV.2SG Rṣivadana monastery:ALL go:IPV.2DU
 ‘Come here! Let us both go to the Rṣivadana monastery!’²¹⁶

MayH3.11a6-7

antag ärsär yu- ... [a7] aršvida[n s]äṅrämkä²¹⁷ barahm
 thus be:COND Rṣivadana monastery:DAT go:VOL.1PL
 ‘If it is thus, ... let us go to the Rṣivadana monastery!’²¹⁸

3.3 THE TOCHARIAN A SUBJUNCTIVE IN SUBCLAUSES

In subclauses, the Tocharian A subjunctive expresses uncertainty, including conditionality. First, conditionals are discussed, with subjunctive (3.3.1, p 191), present (3.3.2, 195), and imperative apodoses (3.3.3, p 198) respectively. Several other subcategories follow: eventual clauses (3.3.4, p 201), iterative (3.3.5, p 202), indefinite (3.3.6, p 203), *kosne*-clauses (3.3.7, p 204), concessives (3.3.8, p 206), comparison clauses (3.3.9, p 208), and final clauses (3.3.10, p 209). In conclusion, the subclause subjunctive is compared with the present (3.3.11, p 211), nominal clauses (3.3.12, p 213), and the optative (3.3.13, p 213).

3.3.1 CONDITIONALS WITH SUBJUNCTIVE APODOSIS

Subjunctive conditionals with a subjunctive apodosis are well attested. In principle, the condition is specific and its fulfilment realistic; since it refers to an as yet unrealised event, it has future reference. The relation between the condition and the consequence may, but not need to be logical, i.e. sometimes the consequence logically follows from the condition, and sometimes it does not. First and second persons are especially frequent since they typically occur in specific conditionals, but third persons are well attested, too.

²¹⁵ Sieg (1937: 134).

²¹⁶ Cf Ji (1998: 193).

²¹⁷ Or *aršvidan*; Yūsüp, Xoja and Qāmbiri (1988: C, 188) read *arsivdan saṅramkä*.

²¹⁸ Cf Geng and Klimkeit (1988: 210–211).

In Old Uygur, Tocharian A subjunctive conditionals are usually rendered with a *sAr*-conditional, but the evidence for the consequence is meagre. For third person consequences, we have *gAy*-futures, just as in main clauses. In view of the correspondences found for main clauses, we would expect different patterns for at least the first person (3.2.3, p 168), and maybe also for the second, but good examples are lacking.

In the first example, the relation is certainly one of logic (*kärsäl tāṣ* probably has no special periphrasis value; it is just the subjunctive – in future function – of *kärsäl*). In the second, the relation is also based on logic, but that logic seems to depend more on the judgment of the speaker: at least for the speaker, the consequence follows logically from the condition.

A15a2-3

äntā(ne wa)s ālu ype kälkāmäs tmann ats
when we other:GEN.PL country go:1PL.SBJ then EMPH

ṣakkats wasām weñlune kärsäl tāṣ
certainly we:GEN saying know:SBJ.GER be:3SG.SBJ

‘When we go into another country,²¹⁹ then it will be possible to check our statement[s].’²²⁰

MY1.9a4

(ku)pr(e)ne nu waštāṣ lāñcāṣ ktsets puttiṣparām
when but home.ABL leave.3SG.SBJ perfect Buddha.rank

kālpātrā
obtain.3SG.SBJ

‘If, however, he leaves the house, he will attain the perfect Buddha rank.’²²¹

MayH1.15a24-26

kačan birök [a25] ävig barkıg kodup dentar išin iṣlāsār [a26]
when however house home abandon:CVB monk act:POSS work:COND

tüz-kärinčsiz yeg burhan kutın bulgay
incomparable excellent Buddha worth:POSS find:FUT

‘If, however, he gives up the house and carries out the duties of a monk, he will attain the incomparable Buddha rank.’²²²

²¹⁹ Literally: ‘into the country of others’.

²²⁰ Cf Sieg (1944: 18). Literally: ‘our saying can be recognised’. The rationale of this sentence is that the princes have such good renown in their own country that they will not be able to prove the value of their skills objectively if they do not go abroad.

²²¹ Ji (1998: 61) slightly different.

²²² Cf Geng and Klimkeit (1988: 104-105).

In the below example, the consequence does not follow logically from the condition: it reflects an expectation of the speaker.

MY1.6b4 = A215a5

kuprene mā et-ñi wtāk šakkats dhanike
 if not give:2SG.SBJ-1SG.SUFF again certainly rich.man
protkaṃ prutkāš-ñi ²²³
 prison:LOC shut.up:3SG.SBJ-1SG.SUFF

‘If you do not give me (the money), the rich man will surely have me shut up in prison again!’²²⁴

MayH1.12b8-10 = MayT11a4-7

birökin bermäz ök ärsär siz²²⁵ mini ikilä tünärig
 if give:AOR.NEG EMPH be:COND you:PL me again dark
kınl(ı)kta bāklägäylär tünin künin tokıgaylar
 prison:LOC lock.up:FUT.PL by.night by.day beat:FUT.PL

‘Wenn Ihr [nicht gebt], dann werden sie mich wiederum im [finsteren Gefängnis] einschließen. Nachts [und tags werden sie (mich) schlagen].’²²⁶

In the following example, the condition is obviously set by the speaker; it is followed by an alternative condition and a long threat in MY1.6b7-8 (‘If you don’t give it, then ...’).

A215a7 = MY1.6b6

kuprene et-ñi kāsu šāwaṃ ākālāntu knāsam-ci •
 if give:2SG.SBJ-1SG.SUFF good great wish:PL fulfil:1SG.SBJ-2SG.SUFF
 ‘If you give me (the money), then it is good and I will fulfil your great wishes!’²²⁷

MayT11a16 = MayH1.12b17-19

birökin altun yaratmak bersär s(ā)n k[üsü]šünjin kanta[čı]
 if gold coin give:COND 2SG wish:POSS.2SG fulfil:PRS.PTC
m(ā)n? ²²⁸
 1SG

‘If you give the gold pieces, I will fulfil your wish[es].’²²⁹

²²³ With Sieg and Siegling (1921: 104) to be read so rather than <1> (pace Ji 1998: 44); the preceding text seems to be in prose, not verse.

²²⁴ Cf Ji (1998: 45).

²²⁵ MayH reads (a wrong) *siziñ*.

²²⁶ Geng and Klimkeit (1988: 282-283); Tekin (1980: 48).

²²⁷ Cf Schmidt (1999: 283; see also Ji 1998: 45).

²²⁸ The restoration of the damaged Old Uyghur text to *küsüşünjin* is plausible, but that of a future *kantačı* is less certain.

²²⁹ Cf Geng and Klimkeit (1988: 282-283), Tekin (1980: 48).

The passage cited below is interesting because it contains one clear first person conditional where the apodosis cannot be understood as a consequence in the strict sense, but it is rather the intention of the speaker. Then this intentional apodosis is continued by the company of the speaker (his brothers), so that the difference between subjunctive apodosis and main clause future subjunctives is blurred.

A11b4-5

kuprene waluntāp šñi āyāntu (pkä)nt pkānt penu kākloñcäs
 if deceased:GEN REFL bone:PL apart apart also fall:PRT.PTC
kālpāmār cesām nāš wtā kaśal tswāsam
 obtain:1SG.SBJ DEM:PL I again together fit:1SG.SBJ
 ‘If I find the bones of a deceased, even [if] they have fallen apart, I will put them together again.’²³⁰

A11b5-6

nāš nu ce(smā)k āyāntu p_ukāk puskāsyo kaśal
 I but DEM:PL bone:PL completely sinew:INS.PL together
malkam-ām
 join:1SG.SBJ-PL.SUFF
 ‘But I will join the bones completely with the sinews.’²³¹

A11b6-A12a1

nāš nu cesmāk āyāntu śwāl ysār yats krām yokyo māmtnē
 I but DEM:PL bone:PL flesh blood skin outer skin hair:INS like
neš tāmnek salu pyutkāsmār-ām
 before just.so whole realise:1SG.SBJ-3SG.SUFF
 ‘But I will restore the bones with flesh, blood, skin, and outer skin,²³² exactly like before.’²³³

A12a1-2

nāš škam wtāk śāmānām y(āmmā)r-ām
 I and again living do:1SG.SBJ-3SG.SUFF
 ‘And I will make him living again.’²³⁴

Although they are rare, reversed conditionals are found, too. In this particular example *pāštā(r)* is a present-subjunctive, but its function is ascertained if indeed it is protatic; the apodotic *wikāš* is certainly a subjunctive.

²³⁰ Cf Sieg (1944: 14). Preceding: A11b4 *sas trānkāš ñi amokyo tāš cāmplune* ‘One [the first] says, «Through my art this is my ability:»’.

²³¹ Cf Sieg (1944: 15). Preceding: A11b5 *wāt trānkāš* ‘The second says:’.

²³² For this translation, see Carling (2009: 171).

²³³ Cf Sieg (1944: 15). Preceding: A11b6 *trit trānkāš* ‘The third says:’.

²³⁴ Cf Sieg (1944: 15). Preceding: A12a1 *štärt trānkāš* ‘The fourth says:’.

A229a7²³⁵

šurmant mā wīkāṣ | omäskenäṣ mā pāštä(r) [46a]
 cause:PL not drive.off:3SG.SBJ evil:ABL not protect:3SG.PRS/SBJ
 'He will not drive off the causes if he does not protect himself against evil.'²³⁶

3.3.2 CONDITIONALS WITH PRESENT APODOSIS

Subjunctive conditionals followed by present clauses are of a number of different types, which seem to have in common that the apodotic present clause does not have future reference (for Tocharian standards). Types we find are:

- general conditionals that do not refer to a specific future event, but to a “tenseless”, principal truth;
- conditionals with specific referents, but an iterative aspect, which makes the event itself non-specific;
- conditionals based on inference, i.e. deducted conclusions and philosophical reasoning;
- conditionals with an apodosis that meets one of the conditions for a present with future reference, i.e. a negligibly close future or one of the verbs ‘go’, ‘become’, ‘give’, etc (see 3.2.8, p 180).

Not for all these types do we have good Old Uyghur parallels from the Maitreya-samitināṭaka, but the ones we have seem to follow the Tocharian A system: the subjunctive protasis is rendered by a *sAr*-conditional clause, and the present apodosis by an aorist clause.

In the following example, the general character of the conditional is ascertained, but unfortunately the apodotic verb is *y-* ‘go’, which by itself could perhaps be a reason for the present. However, it is used in a fixed expression and it does not denote motion here.

A14a2-6

(ku_[a3]pre) škam ne wrasom wlal lakeyaṃ kliso puk
 if and REL being die:SBJ.GER bed:LOC lie:PRT.PTC all
wraskentuyo worpu : sne ime sne kã(pñe_[a4]s
 illness:INS.PL surrounded without consciousness without love
älakām) ārkišoṣ(y)ac ymām tāṣ tām praṣtaṃ mā cami
 other world:ALL go:PRS.PTC be:3SG.SBJ DEM moment not DEM:GEN
škam tsraṣṣune wramam yäṣ mā amo(k_[a5] mā knānmune m)ā
 and energy case:LOC go:3SG.PRS not art not wisdom not
kāwältune mā pācar mā mācar mā ṣar mā pracar mā šām
 beauty not father not mother not sister not brother not wife

²³⁵ Verse: metre a, c: 5 | 7 (5 | 4+3), b, d: 7 | 8 (3+4 | 5+3).

²³⁶ Cf Schmidt (1974: 306).

mā sewāñ mā wašt mā nišpa(l_[a6] cami wramam yä)š
 not children not house not possessions DEM:GEN case:LOC go:3SG.PRS
sas pñik škam tām praštam cami wramam yäs
 one merit and DEM moment DEM:GEN case:LOC go:3SG.PRS

‘And when a being lies dying in bed, surrounded by all illnesses, and is going to (another) world without consciousness and without love, at that moment [its] energy is not of any use,²³⁷ nor are [its] art, [its] wisdom, [its] beauty, [its] father, [its] mother, [its] sister, [its] brother, [its] wife, [its] sons, [its] house, or [its] possession[s] of any use²³⁷ – only and alone [its] merit is of use²³⁷ at that moment.’²³⁸

An example with an Old Uygur parallel is the following, but here again the apodotic verb is *y-* ‘go’; moreover, the Old Uygur is far from literal.

MY2.11b4²³⁹

/// (wras)om | tri ñemintwam | wsokoneyäs : [1a]
 being three jewel:LOC.PL joy:ABL
letatär yäs | muskālune | kotluneyam : [1b]
 fall:3SG.SBJ go:3SG.PRS vanishing destruction:LOC
 ‘If a being falls from the joy in the three jewels, he goes to vanishing and destruction.’²⁴⁰

MayH2.13a6-11

kim kayu tınlag_[a7] öñrä üç ärdnikä süzüliüp_[a8] ken yana
 who which being before three jewel:DAT purify:CVB later again
anča munča tıltagin_[a9] aklap süzük köñli išilsär_[a10]
 a.bit such cause:INST hate:CVB pure heart decrease:COND
korasar bu ärür .. töpüdin taymak_[a11] tüšmāk
 decrease:COND DEM be:AOR skull:ABL slip:INF fall:INF
 ‘Wenn ein Wesen früher die drei Juwelen verehrt hat²⁴¹ und danach wiederum aus irgendeiner Ursache (sie) verachtet und sein Herz (an Glauben) abnimmt (Hend.), so ist dies das ‘Herabgleiten vom Scheitel’.’²⁴²

A sharp line between iterative clauses and iterative conditionals is not always easy to draw: in Tocharian, a conditional conjunction need not be there and then it becomes

²³⁷ Literally: ‘goes in the case’ or ‘comes in the case’ etc.

²³⁸ Cf Sieg (1944: 17).

²³⁹ Verse: metre apparently 4 x 4 | 4 | 4, but päda 1d does not fit.

²⁴⁰ Ji (1998: 121).

²⁴¹ Literally “is purified” according to Clauson (1972: 863); by Geng and Klimkeit (1988) often rendered as “ehrfürchtig”. Erdal translates *süzül-* as ‘have faith’ (1991: 244).

²⁴² Cf Geng and Klimkeit (1988: 160-161).

a matter of interpretation what the function of the subjunctive subclause is. In the first example, the indefinite or iterative value follows from *pkänt pkänt* ‘one by one’; in the second, it is only the present of the apodosis that leads to the iterative interpretation. In both cases, the apodosis evidently has no future reference.

A7b5-6²⁴³

*ka(pśim)*_[b6] *ñāṣās* *pākāntu* | *pkänt* *pkänt* *potkamā*²⁴⁴ *tṣam*
 body:ADJ part:PL apart apart divide:1SG.SBJ/ not DEM:LOC
naṣ | *āñcām* *ñomā* : [1c]
 be:3SG.PRS self name:PERL

‘If I examine²⁴⁵ the body parts one by one, there is nothing called “the self”.’²⁴⁶

A6a1²⁴⁷

rasaṣ *poke* *paṃ* *ypamām* | *sumnātr* *oki* *cwankeyam* : [1b]
 stretch:3SG.SBJ arm PAM²⁴⁸ do:PRS.PTC pull:3SG.PRS like lap:LOC
 ‘[But] anytime she stretches her arm when she serves me, she pulls [me] onto her lap, as it were.’²⁴⁹

The clearest example of a conditional based on inference that I have found is the one directly below, where the truth of the condition automatically leads to the conclusion in the consequence, which in itself has no strict relation to tense, and certainly not to the future.

MY1.5a8

(*ma*)*dhyadeṣaṣi* *tāt* *sne* *parnākk* *ats* *naṣt*
 Madhyadeśa be:2SG.SBJ without glory EMPH be:2SG.PRS
 ‘If you are from Madhyadeśa, you will indeed be without glory.’²⁵⁰

Closer to a general conditional is the following, from a philosophical explanation of several types of eras or world periods.²⁵¹

²⁴³ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

²⁴⁴ For *potkam mā*.

²⁴⁵ Literally: ‘divide’.

²⁴⁶ Cf Sieg (1944: 11); Pinault (2008: 260).

²⁴⁷ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

²⁴⁸ On this particle, see footnote 349.

²⁴⁹ Cf Sieg (1944: 9); Pinault (2008: 258).

²⁵⁰ Ji (1998: 41).

²⁵¹ The restoration of a present for *māsk-* is certain because this verb has no subjunctive.

A18a3-4

oktuk antarakalpañ kätkeñ sas mahākalp mā(skatā)r
 eighty antarakalpa:PL cross:3PL.SBJ one mahākalpa be:3SG.PRS
 ‘If eighty antarakalpas pass, it is one mahākalpa.’²⁵²

The next two examples are definitely specific and one could therefore expect a subjunctive apodosis, but as the verbs *y-* ‘go’ and *āy-* ‘give’ are among those that are more often found as future presents, this may be the reason why they are in the present. In the second example, the finite verb forms of the Old Uyghur are unfortunately restored, so that instead of a volitional, we could perhaps also restore an aorist *berü täginür m(ā)n*.

MY3.11b4

šmeñc ats dakšinakī tmäk korpac yş-ām
 come:3PL.SBJ EMPH receiver.of.alms:PL then towards go:3SG.PRS-PL.SUFF
 ‘When the receivers of alms arrive, he goes to meet them.’²⁵³

MY3.10b2 = A446a5

/// tāşş āñānik pissānkac el esam
 be:3SG.SBJ venerable community:ALL gift give:1SG.PRS
 ‘(If this) is (so), I will give a gift, o venerable one, to the community.’²⁵⁴

MayH3.10a22-23

antag [a23] [ärsär m(ā)n] kuvrag ärdnikä buşi berü [a24]
 so be:COND 1SG community jewel:DAT alms give:CVB
[tägäyin]
 RESP:1SG.VOL

‘[Wenn] es so [ist, will ich] dem Juwel der Mönchsgemeinde eine Gabe geben.’²⁵⁵

3.3.3 CONDITIONALS WITH IMPERATIVE APODOSIS

An imperative clause may be preceded by a conditional clause. As it happens, the pattern of a preceding subjunctive conditional clause followed by an imperative clause is well attested, and in quite some cases there are good Old Uyghur parallels to the examples from the Maitreyasamitinātaka. Grammatically, there seems to be little difference between conditionals that would in English be rendered by *if*-clauses, i.e. probable but uncertain circumstances, and *when*-clauses, i.e. future events that are so likely to take place that it is merely a matter of time.

²⁵² Cf Sieg (1944: 22).

²⁵³ Cf Ji (1998: 193).

²⁵⁴ Cf Ji (1998: 189).

²⁵⁵ Geng and Klimkeit (1988: 206-207).

I would expect that imperative clauses can also be preceded by optative conditionals, but I have found no examples; in principle, there is nothing wrong with ‘if by chance you should be in the neighbourhood, please do drop in’ or the like, which I would expect to have the structure *optative* – *imperative* in Tocharian A. Counterfactual conditionals with following imperative are not attested either, but that is certainly to be explained with the incompatibility of the imperative with past tense.²⁵⁶

In the first two examples below, it is still uncertain whether the condition will be fulfilled. In the second, we have a nice Old Uyghur parallel with the OUY. cond. *y_(a)rlıkasar*, corresponding to the TA conditional sbj. *wätkäş-*, and OUY. 2pl.vol. *ukunlar* in the apodosis, which corresponds to the TA ipv. *pkärsäs*.

A71b2²⁵⁷

kuprene rake mäkks ats weñäş | pätskac-äm sol käreyo
 if word not:EMPH PCL say:3SG.SBJ pull.out:IPV.PL life sword:INS
 ‘If he does not say a word at all, take the life out of him with the sword!’²⁵⁸

MY2.5a7-8 = A213b3-4

kuprene säm yasäm caş penu pärklune sne • (tä)ñklune
 if DEM your:PL DEM also questioning without hesitation
atänkät wätkäş-äm cam yas wäşpā wä(tkäls
 unchecked distinguish:3SG.SBJ-3SG.SUFF DEM you indeed certainly
*tämne) w(ä)knā kakmunt puk knānmānānt ptänkät pkärsäs*²⁵⁹
 DEM:REL way come:PRT.PTC all knowing Buddha know:IPV.PL
 ‘If he also understands your questioning immediately and without hesitation, then you are indeed to recognise him surely as the (Tat)hāgata and the all-knowing Buddha.’²⁶⁰

MayH2.6a8-12

bu muntag törlüg ayıt_[a9]miş sezikläriñizni adartlayu_[a10]
 DEM thus ADJ ask:PTC your.questions distinguish:CVB
y_(a)rlıkasar .. ötrü sizlär inčä ukunlar_[a11] seziksiz
 RESP:COND then you:PL so understand:VOL.2PL doubtless

²⁵⁶ In fact, Dutch has a counterfactual imperative, e.g.

had dat gedaan!
 had that done

ca. ‘you should have done that’ (see Haeseryn e.a. 1997: 66-67).

²⁵⁷ Verse: metre a: 20, b: 22, c: 10, d: 15 (a: 5 | 5 | 5 | 5, b: 8 | 7 | 7, c: 5 | 5, d: 4+4 | 4+3).

²⁵⁸ Cf Sieg (1952: 18).

²⁵⁹ Here A213 seems to deviate. The photo of the damaged manuscript is not very clear, but instead of Sieg and Sieglings’ <[t]ām> (1921: 103) where we actually expect to find *pkärsäs*, we can probably also read <[s]ām> (<[s]ām> with a virāma seems to be no option).

²⁶⁰ Cf Ji (1998: 91).

tükäl bilgä t(ä)ŋri t(ä)ŋrisi burhan_[a12] ärmiš
 completely wise god.of.gods Buddha be:PTC

‘Wenn er dieses derartig von euch Gefragte zu unterscheiden geruht, dann möget ihr es so verstehen: Ohne Zweifel ist es der völlig weise Göttergott Buddha.’²⁶¹

In the two examples below, it seems that the protases are best rendered as *when*-clauses: in the first, it is the OUy. conjunction *kačan* ‘when’ that indicates this, in the second it is the meaning, combined with the Tocharian A conjunction *äntāne* ‘when’. Although the TA protasis is incomplete in the first example, we have a perfect correspondence between the TA sbj. *yomnāc* ‘you reach’ and the OUy. cond. *tägsār sizlār* ‘if you reach’, and in the apodosis between the TA ipv. *plos* ‘send!’ and the OUy. *ıdıñlar* ‘send!’. In the second, the TA sbj. *śmāc* ‘you come’ corresponds to the OUy. cond. *tägsār sizlār* ‘if you reach’ in the protasis, and the TA ipv. *pāskāyās* ‘make effort!’ to the OUy. 2pl.vol. *kataglanıñlar* ‘make effort!’ in the apodosis.

MY2.5b6²⁶²

/// yomnāc oñkraci : şakkats şkaṃ ñi tmāş pāk
 obtain:2PL.SBJ immortal surely too I:GEN DEM:ABL part

plos ymā(r şkāṛā)
 send:IPV.2PL quickly back

‘When you reach immortal (bliss), surely send also part of it quickly (back) to me!’²⁶³

MayH2.6a28-b1

kačan_[a29] sizlār mājñlūg mājñikā tägsār sizlār_[a30] maña
 when you:PL eternal joy:DAT reach:COND you:PL I:DAT

y(e)mā ādgülūg ülüş yanturu ıdıñ_[b1]lar
 too good part back send:VOL.2PL

‘When you reach eternal joy, send also a good part²⁶⁴ back to me again!’²⁶⁵

MY2.4b3 = A216²⁶⁶b4-5 = A212b5

(änt)āne tsopatsām krop wartsyaṃ lmont ptāñkāt kāşşinac
 when large crowd community:LOC sit:PRS.PTC Buddha teacher:ALL
 kātse śmāc tmāk yas cami kapśiññam taryāk (wepi
 close come:2PL.SBJ then you:PL DEM:GEN body:LOC thirty.two

²⁶¹ Geng and Klimkeit (1988: 132-133).

²⁶² Possibly metrical, but the passage is too fragmentary to establish the metre.

²⁶³ Cf Ji (1998: 93).

²⁶⁴ Wilkens translates this as a more specific “Heilsanteil” (2008: 420).

²⁶⁵ Cf Geng and Klimkeit (1988: 134-135, slightly different).

²⁶⁶ To be turned over.

lakṣaṇās lkā)tsi päskāyäs

mark:PL see:INF make.effort:IPV.PL

‘When you come close to the Buddha, the teacher, sitting surrounded by a large crowd, then you must try to see the thirty-(two marks) on his body.’²⁶⁷

MayH2.5a1-5

tört törlüg terin [a2] kuvrag ara olorur ärkän t(ä)ḡri
four ADJ crowd community between sit:AOR while god

burhan[a3]ka yakın tägsär ..²⁶⁸ sizlär anta sizlär aṇ [a4] ilki
Buddha:DAT close reach:COND you:PL then you:PL EMPH first

iki kırk irü b(ä)lgü kutın buyanın [a5] adirtlagalı²⁶⁹
thirty.two omen mark worth:POSS merit:POSS distinguish:CVB

ukgalı kataglanıṇlar

understand:CVB make.effort:2PL.VOL

‘When you come close to the Buddha while he is sitting amidst the fourfold community, then you must first try to recognise the thirty-two marks of worth and merit.’²⁷⁰

3.3.4 EVENTUAL

Eventual clauses add uncertain information to a main clause: the information may or may not be correct, or the situation may or may not be the case. This uncertainty is expressed by the subjunctive. In the example directly below, for instance, there seems to be no other way to interpret the use of the subjunctive form *tāṣ* ‘is’: it is certainly not temporal or conditional, for instance, and the preceding *mämtne* ‘how’ indicates that the content is uncertain. In a literal translation, this type of clauses should be rendered with English *may*, but it seems that in the Tocharian the subjunctive form does not have a comparably strong emphasis.

A432a2

śomiṇ pārkmār-ci мәмтне wram tāṣ tāmne
girl ask:1SG.PRS/SBJ-2SG.SUFF how thing be:3SG.SBJ so

²⁶⁷ Cf Ji (1998: 83).

²⁶⁸ The interpunction is wrong.

²⁶⁹ Yūsüp, Xoǰa and Qāmbiri (1988: C, 148) read *adartlagalı*.

²⁷⁰ The translation follows that of Yūsüp, Xoǰa and Qāmbiri (1988: C, 35). Cf also Geng and Klimkeit (1988: 126-127), who have the wrong subject for the *ärkän*-clause: ‘Wenn ihr inmitten der viergliedrigen Gemeinde (*catuṣpariṣad*) sitzt und dem göttlichen Buddha nahekommt, dann möget ihr euch bemühen, zuerst die 32 guten Zeichen (*lakṣana*) der Würde [des Buddha] zu unterscheiden und zu verstehen’.

peṃ mar nṣac smale •
 say:IPV.SG not:PROH I:ALL lie:GER

‘Girl, I ask you, how the matter is, so say it! [You are] not to lie to me!’²⁷¹

The following example is rather fragmentary, but because of the good match with the Old Uyghur version it is nevertheless possible to give a reliable interpretation. Here the eventual subjunctive seems to emphasise that it is as yet unknown which field it is that has the required qualities to grow cotton for a garment for the Buddha.

MY3.4a5

/// k(a)knu miṣi tāṣ cam tu kāsu āneñci pleṣār
 provided field be:3SG.SBJ DEM you good careful work:IPV.SG
 ‘(Which) field is provided with ..., that you must till well and carefully!’²⁷²

MayH3.4a31-b3

kayu kábāzkā ya[ra]ṣi sākiz törlüg [b₁] adrokin tükällig yer
 which cotton:DAT quality eight ADJ special completely land
ärsär anı sizlär suvap [b₂] sıp sapanlap anok uruñlar
 be:COND DEM you:PL water:CVB plough:CVB work:CVB ready make:IPV.PL
kim m(ā)n t(ā)ṣri [b₃] t(ā)ṣrisi burhan üčün kábāz tariyur m(ā)n
 that I god.of.gods Buddha because.of cotton plant:AOR 1SG
 ‘Dasjenige Land, das für Baumwolle geeignet ist und insgesamt achterlei Quali-
 täten aufweist, das bewässert, pflügt, beackert und bereitet, damit ich für den
 Göttergott Buddha Baumwolle pflanze!’²⁷³

3.3.5 ITERATIVE

Present iterative and indefinite clauses require a subjunctive finite verb; if they are past, an optative is used instead (see 3.3.13, p 213). The difference between iterative and indefinite clauses is sometimes small. In principle, an iterative clause denotes a repeated action, whereas an indefinite clause presents an action as not entirely clear, but in any case irrelevant for the main clause. However, the two become close to each other if the indefinite clause stresses the irrelevance of the number of instances of an event, or its degree. As typical iterative clauses I take those where the main clause takes up the number of instances, as in the two sentences below. The first is damaged, but its type is ascertained by the reduplicated *tmanäk tmanäk* ‘in each of them’ on the one hand and by the Old Uyghur parallel on the other. A more literal translation for the second would be ‘as often as ..., exactly so often ...’.

²⁷¹ Cf Schmidt (1974: 377).

²⁷² Probably so rather than Ji’s: “(when) this field has become ..., then you work it well and carefully.” (1998: 161).

²⁷³ Geng and Klimkeit (1988: 184-185).

MY2.7a1

/// (ype)yaṃ śmāṣ tmanāk tmanāk wältsantuyo
 land:LOC come:3SG.SBJ in.each.of.them thousand:INS.PL
 ‘... in every land (of Madhyadeśa) he comes to, in each of them (the beings honour him) by thousands.’²⁷⁴

MayH2.7b15-20

anta ötrü burhanlig č_(a)kr_(a)v_(a)rt elig han_[b16]nıy uluḡ oḡlı tözüñ
 then then Buddha:ADJ cakravartin king king:GEN great son noble
 maytrı bodis_(a)vt_[b17] d_(a)kšanap_(a)t eltin matyadeś uluška_[b18]
 Maitreya Bodhisattva Dakṣiṇāpatha land:ABL Madhyadeśa domain:DAT
 täginčä kayu kayu uluška tägsär sans_(i)z_[b19] öküş tınlıḡlar
 reach:EQU whichever land:DAT reach:COND countless many being:PL
 ulug agar ayagin utru_[b20] ünärlär ärdi
 great honour honour towards come.out:AOR.PL be:PRT
 ‘Als der bedeutendste Sohn des Buddha-cakravartin-Königs, der edle Bodhi-sattva Maitreya, vom Dakṣiṇāpatha-Reich zum Land Madhyadeśa kam, da er-wiesen ihm in jedem Land, das er erreichte, zahllose, viele Wesen tiefe Ver-ehrung (Hend.) und hießen ihn willkommen.’²⁷⁵

A2b4-5

kospreṃ kospreṃ škam ne amokäts amo(kṣim) wram pyutkāštär :
 anytime and REL artist art:ADJ thing create:3SG.SBJ
 täprenāk täprenāk päñ pärkowäntu mäskamtr-äm
 just.so.often five advantages be:3PL.PRS-3SG.SUFF
 ‘Anytime an artist creates a work of art he has five advantages [from it].’²⁷⁶

3.3.6 INDEFINITE

For the similarities between iterative and indefinite clauses, see above. Below, I give three examples that are difficult to analyse as iterative clauses. Importantly, they all have a present main clause. For the second and the third example this is certain because it contains an overt present form; in the first it is plausible, but not certain because *praskmār* is a present-subjunctive.

A10b5-6

kusne rāmes praskmām tāt (näṣ mā)
 who Rāma:GEN fear:PRS.PTC be:2PL.SBJ I not

²⁷⁴ Cf Ji (1998: 103).

²⁷⁵ Geng and Klimkeit (1988: 138-139).

²⁷⁶ Cf Sieg (1944: 5).

praskmār-ām

fear:1SG.PRS/SBJ-3SG.SUFF

‘Whoever of you is fearing²⁷⁷ Rāma, I don’t fear him.’²⁷⁸

A4a4-5

āntām tkaṇā ne sām tsmār kārknāṣ tmāṣṣ aci
where earth:PERL REL DEM root bind:3SG.SBJ there:ABL onwards

kro(ś [a₅] tka)naṃ lok or oktsiṣṣ-ām

krośa earth:LOC far wood grow:3SG.PRS-3SG.SUFF

‘Where on earth it strikes²⁷⁹ root, from there its wood grows on on earth for *krośas*.’^{280,281}

A218b3²⁸²

mā ṇi wāsklune mā rake pālsāk paramāṇū kṣaṃ yārmaṃ
not I:GEN movement not word thought atom moment measure:LOC

naṣ kusne ālu s_ukac mā tāṣ : 17

be:3SG.PRS which other:GEN.PL happiness:ALL not be:3SG.SBJ

‘There is no movement, no word or thought of mine, [not] even within the measure of the smallest moment, which would not be for the happiness of others.’²⁸³

3.3.7 KOSNE ‘AS’

Adverbial clauses with the conjunction *kosne* ‘as’ are attested in two types: nominal, and with subjunctive finite verbs. It seems that the subjunctive depends on *kosne*, making the clause indefinite, i.e. no matter how long the event in the subclauses goes on, or no matter how much of it is done, the main clause still holds. However, it is also possible that the subjunctive is caused by the future reference of these sentences instead, as I have found no subjunctive *kosne*-clause with a present main clause.

²⁷⁷ The construction *praskmām tāt*, with a prs.ptc. and a copula, is unusual; perhaps it is a calque on a Sanskrit construction.

²⁷⁸ Rather than Sieg’s conditional “Wenn ihr den Rāma fürchten solltet, (ich) fürchte ihn (nicht).” (1944: 14).

²⁷⁹ Literally: ‘binds’.

²⁸⁰ A large distance measure, “Indian league” (Monier-Williams 1899: 322, col.2).

²⁸¹ Cf Sieg (1944: 7).

²⁸² Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

²⁸³ Cf Sieg and Siegling (1933: 173; see also Hackstein 1995: 198). The Chinese translation of Aśvaghōṣa’s *Buddhacarita* offers only an imprecise match; perhaps we should compare Beal (1883: 170): “I have no name – nor do I seek profit or pleasure, But simply to declare the truth; to save men (living things) from pain, and to fulfil my ancient oath, to rescue all not yet delivered.”

In view of the different nuances of *kosne*, it is probably best to say that it actually means no more than ‘as’ in the non-causal sense. In English, we often need to translate ‘as much as’, ‘as far as’, ‘as long as’, and so on, but these precisions form no part of the meaning of the Tocharian word.

A71a5

/// *tp(u)kāssi yātaṣ kosne śolṣim praskiyaṃ mā śmāṣ*
 hide:INF be.able:3SG.SBJ as life:ADJ fear:LOC not come:3SG.SBJ
 ‘Will he be able to hide himself as long as he does not come into danger of life?’²⁸⁴

A218a5²⁸⁵

| *weñam tāpärk ślokaśši wram | kosne ime*
 say:1SG.SBJ now strophe:GEN.PL thing as memory
kalkaṣ-ñi : [14b]
 go:3SG.SBJ-1SG.SUFF
 ‘I will now state the sense²⁸⁶ of the strophes as far as my memory goes.’²⁸⁷

Nominal *kosne*-clauses are much better attested, even next to subjunctive main clauses.

MY1.2a4²⁸⁸

/// (*ñäkcyā*)s *napeṃṣās | yomnāṣ sukuntu kosne kri* : [2b]
 divine human reach:3SG.SBJ²⁸⁹ happiness:PL as desire
 ‘He will acquire (divine) and human happiness as much as he wants.’²⁹⁰

²⁸⁴ Cf Sieg (1952: 18).

²⁸⁵ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3). The preceding /// *titi* might be for *utpatti* ‘origin’.

²⁸⁶ *wram*, normally ‘matter, thing’, is here as a calque used in another meaning of Skt. *artha*, o.a. ‘thing; sense’.

²⁸⁷ Cf Sieg and Siegling (1933: 172).

²⁸⁸ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

²⁸⁹ This form could theoretically also be a present, i.e. prs. {*yomnāṣ-ṣ*} instead of sbj. {*yomnā-ṣ*}, but as it should be one of the two, the *stem* is not present-subjunctive.

²⁹⁰ Ji (1998: 29).

A62b1-2²⁹¹

tṣaṃ spārtweñc | kälkeñc ñāktas napemsaṃ : [5a]

DEM:LOC turn:3PL.SBJ go:3PL.SBJ god:PL man:LOC.PL

sne kaś saku – – – /// [5b]

without number pleasure[s]

(kusne) piktrā mārkaṃpal | kritāṃ yaś sām

who write:3SG.PRS law gratitude do:3SG.PRS DEM

ptāñāktes : [5c]

Buddha:GEN

kosne postkaṃ akṣari | tprenāk wyārās sas yāmtrā : 5

as book:LOC akṣara:PL so.many monastery:PL one do:3SG.SBJ

‘Here they [= the possessions of the law] will turn round and go among men and gods; countless pleasures ...; he who writes down the law, shows his gratitude to the Buddha;²⁹² as many akṣaras as there are in a book, so many monasteries will the first²⁹³ make.’

The pattern with a negated present main clause and a very short *kosne*-clause is well attested, too. Here, *kosne* is very close to being a preposition.

A71a4

mā tṣaṃ tāpreṃ kāpñe ālak wraṃ naś kosne ṣṇi śol

not DEM:LOC so dear other thing be:3SG.PRS as REFL life

‘There is no other thing as dear as one’s own life.’²⁹⁴

The fact that no present *kosne*-clauses are attested in my view leaves room for the possibility that the conjunction requires a subjunctive. The nominal examples would then form a special category, or *kosne* has to be viewed as a preposition there.

3.3.8 CONCESSIVE

In concessive clauses the information is presented as irrelevant to the statement of the main clause. A typical concessive clause gives factual information that is irrelevant, but clauses that give *possible* irrelevant information may be closely related

²⁹¹ Verse: metre 4 x 7 | 7 (4+3 | 4+3). The first four syllables of 5a belong syntactically to the preceding (with a considerable lacuna; for the restoration cf Thomas 1957: 153): A62a6-b1 *māmtne pācar niṣpalntu | wlaṃ(luneyaṃ sewāśi [4c] lipāś tāṃnek sām kāṣṣi | mārkaṃpa)lṣās niṣpalntu : 4 lyepās wasām* ‘Like a father who leaves his possessions to his sons when dying, thus the teacher has left to us the possessions of the law.’

²⁹² Cf Carling (2009: 172).

²⁹³ Literally: ‘the one’.

²⁹⁴ Cf Sieg (1952: 18).

to conditional clauses. The factual concessive would be ‘even though A, B’, the possible concessive ‘even if A, B’; the difference with ‘if A, B’ is only the word “even”, which roughly corresponds to *penu* ‘also’ in Tocharian A.

In the first example, the concessive clause is factual, i.e. speaker and hearer take its truth for granted. The second example concerns a general principle that could be applied to many specific cases, and, consequently, its concessive clause is possible. (A third good example is A5a2-4, given further below in 3.3.9, p 208.)

A65a1²⁹⁵

pñintwiss oko nišpalntu | tākeñc penu nutont šol | mā
 merit:GEN.PL fruit possession:PL be:3PL.SBJ also perish:PRT.PTC life not
škaṃ štāmseñc [1b]
 and establish:3PL.PRS

‘Even though possessions are the fruit of merits, they do not [re-]establish life when it has perished.’²⁹⁶

MY2.6b1-2²⁹⁷

aryu penu wärpātrā | [b2] /// [1a]
 long also receive:3SG.SBJ
 /// (ce)smaššāl aryu pe | plāntaš ākaṃ śralune | tmäkk
 they:COM long also be.pleased:3SG.SBJ end:LOC separation then
ats kumnāš : [1b]
 EMPH come:3SG.PRS

‘Even if for a long time (one) enjoys ... even if for a long time he is pleased with them, in the end separation will come for sure.’²⁹⁸

MayH2.7a11-17

näčä [a12] ürkič bu tılag oğlanı beš törlüg [a13] säviglig mänji
 what long DEM being child five ADJ lovely joy
täginsärlär .. šor suv [a14] içmiš osuglug todmaz
 reach:COND.PL salt water drink:PTC like satisfy:NEG.AOR
kanmazlar .. näčä ür[a15]kič amraklagu kuvrag birlä
 satisfy:NEG.AOR.PL what long dear community together
māñiläsär [a16] ögrünčüläsär (.) keniñä amraktın adralmak [a17] açtğ
 enjoy:COND enjoy:COND later dear:ABL separate:INF pain
ämğäk k(ä)lmäki bar
 pain come:INF there.is

²⁹⁵ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

²⁹⁶ Cf Sieg (1952: 25).

²⁹⁷ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

²⁹⁸ Ji (1998: 97).

‘Wie lange auch die Kinder der Lebewesen diese fünf Arten von lieblichen Freuden (*pañca kāmagaṇāḥ*) genießen (wrtl.: erreichen), indem sie wie Salzwasser trinkende (Wesen sind), die nicht gestillt und befriedigt werden, wie lange sie sich (auch) freuen (Hend.) mit (ihrer) geliebten Gemeinschaft, so kommt doch letztlich das schmerzliche Leid der Trennung von den Geliebten.’²⁹⁹

3.3.9 COMPARISON

There are three instances of subclauses in a metaphorical comparison where a subjunctive is used. In the English translation, it is necessary to express the fact that the comparison clause is not actual with a *were*-conditional. Normally, such unreal clauses are formed with the optative in Tocharian, so that it is surprising to find a subjunctive instead. However, the interpretation is beyond doubt and so we are forced to add this category to the use of the Tocharian A subjunctive. It is striking to note that in the first case, the main clause is even past, whereas the subjunctive is normally not used in past contexts (the same is true of A312a1, not cited here, but see 3.3.13, p 213). In the second example, the main clause is a general present. Apparently, the tense of the main clause did not affect the finite verb of the comparison clause – a clear relative tense feature (see footnote 11). The structure of the second example is a bit more complicated, the first two subjunctives *tāṣ* being part of concessive subclauses; the finite verb of the main clause is *pālkāṣ*.

A12b2-3

tāmne sām tām praṣṭam pālkāl tāk mām̐tne ṣpānyo
 so DEM DEM moment see:SBJ.GER be:3SG.PRT like sleep:INS
kliso sne wāsklune kesār śīśāk tāṣ
 lie:PRT.PTC without motion Kesara lion be:3SG.SBJ
 ‘At that moment it looked like it were a motionless Kesara lion, lying asleep.’³⁰⁰

A5a2-4

tāṣ penu (wra)_[a3] som arāmpātyo kaknu lkātsi kāswe knānmune
 be:3SG.SBJ also being figure:INS provided see:INF lovely wisdom
ats mā tāṣ-ām tāpreṃ ats pālkāṣ mām̐(tne)_[a4] tsekeṣi
 just not be:3SG.SBJ-3SG.SUFF then just look:3SG.PRS like fashioned
pekeṣi pat arāmpāt tāṣ
 painted or figure be:3SG.SBJ
 ‘Even if a being is provided with a [beautiful] figure [and] lovely to look at, [but] it has no wisdom, then it looks exactly like it were a fashioned or painted figure.’³⁰¹

²⁹⁹ Geng and Klimkeit (1988: 136-137).

³⁰⁰ Cf Sieg (1944: 15).

3.3.10 FINAL

The usual way to express purpose and goal is with an infinitive clause, mostly preceding the main clause: the infinitive has a strong final value. Besides, finite final clauses are also found, which rather follow the main clause. In all certain cases this main clause is an imperative clause, and the final clause is a subjunctive clause.

In quite a number of cases the word *māntne* (or *māmtne*) introduces the final clause, and in these sentences it is attractive to view it as a conjunction ‘so that’, ‘in order to’. However, because the word has other functions, too, mostly translating as ‘how’ or ‘like’,³⁰² we have to bear in mind that splitting its function is perhaps only imposing distinctions on the Tocharian that are not actually there. Having said that, the word *māntne* is very helpful for the interpretation of these sentences, as it shows that smaller clauses have to be taken together as longer sentences.

Alternatively, it seems that *māntne* may also be absent, but in those cases it is often difficult to exclude that the clauses are merely juxtaposed.

In the first two examples, the final clause is introduced by *māntne*, which is in the second rendered by the Old Uygur conjunction *kim* ‘that’; the construction with *gAll*-forms and *bol*- ‘be’ expresses ability,³⁰³ whereas the volitional ending *-alim* can be compared with the Tocharian subjunctive.

A34ob7

oṣem pkāmār śikṣāpat māntne tmākyok mā nkatār
by.night bring:IPV.SG moral so.that DEM:PERL/EMPH not perish:2SG.SBJ
‘Keep the moral by night, so that you will not perish by that same thing!’

MY3.2b1

pyām ske māntne kālpmāntār krant mārkampal klyosnāssi
do:IPV.SG effort so.that obtain:1PL.SBJ good law hear:INF
ptāñkā(t) kāṣṣi lkātsi
Buddha teacher see:INF
‘Make an effort so that we get to hear the good law, (and see) the Buddha, the teacher.’³⁰⁴

MayH3.2b7-10

amtı siz inčä [b8] kataglanıñ³⁰⁵ kim biz y(e)mā siz[b9]iñ
now you so make.effort:IPV that we and your

³⁰¹ Cf Sieg (1944: 8).

³⁰² These two meanings are closely connected, cf Gm. *wie*, It. *como*, both ‘how; like’.

³⁰³ The construction is well attested (Erdal 2004: 259); therefore, there is no need to read *bul*- ‘find’ instead, which could theoretically render *kālpā*- ‘obtain’.

³⁰⁴ Cf Ji (1998: 151).

³⁰⁵ So to be corrected for *kataglanına* in the manuscript.

kutuñuzta nom ešidgäli t_(ä)ŋ_[b10]ri t_(ä)ŋrisi burhanag kör[gäli]
 glory:2PL.LOC law hear:CVB god.of.gods Buddha see:CVB
bolalım
 be:VOL.1PL

‘Jetzt bemüht Euch dahingehend, daß auch wir durch Eure Majestät das Gesetz hören und den Göttergott Buddha sehen!’³⁰⁶

In the example below, still translated as juxtaposed sentences, there is a strong causal connection between the imperative and subjunctive clauses, which makes a final reading of the latter attractive. The Old Uyghur translator has definitely understood it that way, as he has added *kim* ‘that’, making the larger structure explicit.

MY1.6a6³⁰⁷

(paş-ñi pāñ kǎ)nt tinārās | lyutñam pare
 give:IPV.2SG-1SG.SUFF five hundred gold.piece:PL drive.away:1SG.SBJ debt
tām skassu : 1
 be:1SG.SBJ happy

‘(Give me five hundred) gold pieces. I will get out of [my] debts and be happy.’³⁰⁸

MayH1.12a19 = MayT117+10b1-2

beš yüz yaratmak b_(e)rgil .. kim birimimin ötāp
 five hundred gold.piece give:2SG.VOL that debt:POSS.1SG pay.debts:CVB
enčin äräyin
 peace:INS be:1SG.VOL

‘Give five hundred gold pieces, so that I can pay my debts and be in peace.’³⁰⁹

In the below appeal by a king (or a herald) to suitors for his daughter, a final reading is certainly possible, but since again overt marking is lacking, we cannot be totally certain (Sieg has translated them as independent clauses).³¹⁰

A66b5

ārwar yāmurāş cam koñ tām tkanā pukmās
 ready do:ABS DEM day DEM place:ALL come:IPV.PL
knatr-ām rito ākāl plāntac k_uleñciñ
 come.about:3SG.SBJ-PL.SUFF cherished wish enjoy:2PL.SBJ woman:ADJ

³⁰⁶ Geng and Klimkeit (1988: 176-177).

³⁰⁷ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

³⁰⁸ Cf Ji (1998: 45).

³⁰⁹ Cf Geng and Klimkeit (1988: 280-281), Tekin (1980: 47). In the Turpan version, the beginning is slightly different: *beš yüz yaratmak kim birimim ...*

³¹⁰ 1952 (p 9): “... rüstet euch [und] kommt an dem Tag zu dem Platz. Es wird euch in Erfüllung gehen der gehegte Wunsch. Ihr werdet euch an der Frauenperle erfreuen.”

ñemiyo

pearl:INS

‘Make yourself ready and come to the place that day, so that your cherished wish will be fulfilled [and] you will enjoy yourself with the pearl of women.’

In the example below, it seems possible to take *waštāš lāñcāš* as a final clause, but other options are certainly available, too. It could be a permissive main clause ‘he may leave the house’, or perhaps the content of *tārkor* ‘permission that he leaves the house’, i.e. ‘permission to leave the house’.

A74a4-5

kuprene māskit waštāš lāntāssi mā kālpāl tāš ... ///
if prince house:ABL leave:INF not obtain:SBJ.GER be:3SG.SBJ

(tā)rkor pyāmā-ŋ waštāš lāñcāš
permission do:IPV.SG house:ABL leave:3SG.SBJ

‘If the prince cannot get to leave the house, ... Give him permission that he may leave the house!’

3.3.11 COMPARED TO THE PRESENT

There are no conditionals with a present in the protatic clause. On the basis of general patterns in conditionals (as exemplified by English, see 3.1.3, p 158), and the evidence of Tocharian B (see 3.6.10, p 265), I would expect that inferential conditionals could have taken present protatic clauses, but I have not been able to find examples.

In some cases, a Tocharian A present subclause corresponds to Old Uyghur conditional sentences. However, this is certainly a subtype of a relative clause with *who* etc, where a conditional is needed in Old Uyghur only: in Tocharian, these clauses are simply construed with a present. In the first example, the Tocharian A subclause is reasonably well preserved, including the word for ‘who’. In the second, the word for ‘who’ is unfortunately lost, but it can safely be reconstructed on the basis of the Old Uyghur parallel (MY3.10a6, not cited here, is probably construed in the same way, but no Old Uyghur parallel is preserved).

MY2.3b2³¹¹

‡ (*ke*)*ne*³¹² *kri n-ām cam lkātsi* : [2c]
who:GEN wish be:3SG.SUFF DEM see:INF

pālcās waštāš ptāñāktac ‡ *kene kri n-ām*
leave:IPV.PL house:ABL Buddha:ALL who:GEN wish be:3SG.SUFF

³¹¹ Verse: metre 4 x 7 ‡ 7 (4+3 ‡ 4+3).

³¹² Because of the parallel construction, probably rather (*ke*)*ne* than Ji’s (*k_upre*)*ne* (1998: 78).

śālpatsi : 2

free:INF

‘... whose wish it is to see him. Go away from the house to the Buddha, (you) whose wish it is to become freed!’³¹³

MY3.10a5 = A446a1

/// *ś(o)mm* (o)*kāk* *śāmaṃ* *kenträ* • *camaṃ* *kālymeyā*
one including monk call:3SG.PRS DEM:LOC correctly

sparcwatār • *puk* *pissāṅkāntu*
behave:3SG.PRS all community:PL

‘... (who) invites only one monk ..., and treats him correctly, all communities ...’³¹⁴

MayH3.10a5-8

inčip *kamag* *kuvragdın* *bir* *yaluñuz* [a6] *toyıñg* *ötünüp*
then all community:ABL one only monk invite:CVB

ävkä *elitip* *ayap* *čiltäp* *agar*[a7]*lap* *buşı*
house:DAT lead:CVB honour:CVB honour:CVB honour:CVB alms

bersär .. *alku* *kuvragka* *tapınmış* *udun*[a8]*miş* *bolur*
give:COND all community:DAT honour:PTC honour:PTC be:AOR

‘Wenn man von der ganzen Mönchsgemeinde nur einen Mönch ins Haus bittet, ihn verehrt und beehrt (Hend.) und ihm eine Gabe gibt, dann wird die ganze Mönchsgemeinde verehrt (Hend.).’³¹⁵

In A361.2, the editors have transliterated *k_upre ne knānat*, which looks like a conditional present ‘if you know’ (Sieg and Siegling 1921: 202), but in fact we have to read *k_upre te*: it is *not* an example of a conditional present (the Tocharian A clause is difficult to translate because it seems that Skt. *pratijānāsi* ‘you claim’ has been interpreted as *jānāsi* ‘you know’):

A361.2

[SKT:] | *kārśakam* *pratijānāsi* | [TA:] *pate* *k_upre* *te*
ploughman claim:2SG.PRS plough whether Q

knānat |

know:2SG.PRS

‘You claim to be a ploughman? | You know how to be a ploughman, don’t you?’

Compare the Pāli parallel in the Saṃyutta Nikāya, *kassako paṭijānāsi na ca passāmi te kaṣiṃ* (Feer 1884: 172) ‘A ploughman by thine own confession thou? No plough-

³¹³ Cf Ji (1998: 79).

³¹⁴ Cf Ji (1998: 189).

³¹⁵ Geng and Klimkeit (1988: 206-207).

ing I can see!” (Rhys Davids 1917: 217) or “Du behauptest ein Säemann zu sein, aber ich sehe deine Aufsaat nicht.” (Geiger 1930: 270). Cf also the Chinese parallel *zì shuō gēng tián zhě* 自說耕田者 ‘You say yourself that you are a ploughman’ adduced by Enomoto (1997: 97).

3.3.12 COMPARED TO NOMINAL CLAUSES

The example below is fragmentary, but nevertheless instructive. The clauses are evidently parallel, but only the first has an eventual subjunctive *tāṣ* ‘who may have the wish’. Apparently, the following clauses could be nominal because the structure was sufficiently clear.

A226b6-7³¹⁶

ke pat nu krī tāṣ | ñareyāntwaṣ /// [2a] [b7] ///

who:GEN or but wish be:3SG.SBJ hell:ABL.PL

ke pat nu saṃ krī | ñākcī suk nāṣ kālṗīmār : [2c]

who:GEN or but DEM wish divine happiness I obtain:1SG.OPT

ke pat nu ākāl | ñākcī napemṣi ā /// [2d]

who:GEN or but wish divine human

‘Who may want to (be freed?) from the hells, or who has this wish, «may I obtain divine happiness!», or who has the wish, «... human and divine ...»’

3.3.13 COMPARED TO THE OPTATIVE

Whereas the subjunctive in subclauses denotes events that are as yet uncertain, or not completely known or defined, the optative in the same clauses denotes events that are perhaps theoretically possible, but improbable. Further, the optative replaces the subjunctive in iterative or indefinite subclauses in a past rather than a present or future context.

On the basis of examples in Tocharian B, and the value of the optative in subclauses and main clauses in Tocharian A, one would expect that irreal, but not counterfactual conditionals are formed with an optative plus optative pattern, i.e. an optative subclause and an optative main clause (this is in my view suggested, though not explicitly stated, by Krause and Thomas 1960: 182-183 and Pinault 1997: 475). Strikingly, it is very difficult to find good examples of this type. Irreal protatic clauses are well attested, but I have not found pure irreal apodotic clauses.

In the often cited example below, the optative subclause indeed denotes an event that is not realistic (in the eyes of the speaker), and not impossible either, but the following optative main clause can hardly be taken as the consequence: it is rather a wish.

³¹⁶ Verse: metre a, c: 5 | 7, b, d: 7 | 8 (a, c: 5 | 4+3, b, d: 3+4 | 5+3).

A23a4-6³¹⁷

k_uprene āṣānik | āṣāṃ tākīṣ nāṣ-wāknum : [1a]
 if venerable worthy be:3SG.OPT like.me
parnoṃtsā(ṃ ... | tñi kapśa)ñi (ts)i(nāts)i : [1b]
 worthy you:GEN body touch:INF
tārkor kālpimār | ṣñi tsar ptāñkāt yrāṣimār : [1c]
 permission obtain:1SG.OPT REFL hand Buddha wash:1SG.OPT
 'If [some]one like me, o arhat, were worthy of touching your dignified body, may I obtain the permission that I may wash the Buddha with my own hand!'³¹⁸

For the other example that is often cited, and where indeed a conditional reading is very likely, see A253a2-3 further below; in that example, the apodosis is nominal and we could be tempted to supply an optative copula, but in view of the scarcity of the type, we should be careful. Below, I interpret the apodosis not as an apodotic clause, but as a normal present clause.

The past iterative use is well illustrated and described by Thomas (1970: 454-458). Of the following two examples, the first, extensively elaborated, contains imperfects in the first main clause, as we would expect for a repeated action. Although the following preterite is less clear, we can probably still suppose that the second example, where the finite verb of the main clause is not preserved, had an imperfect, too.

A312a1-3

tmāṣ ptāñkāt kāṣṣi māṃtne y. — — ṣul tāṣ
 then Buddha teacher like mountain be:3SG.SBJ
tmaṣṣāl tāskmām taryāk we pi lakṣaṇā(syo) o(ktuk) [a2] cāñcraṃ
 DEM:COM comparable thirty.two marks eighty gentle
yetwesyo (yetu) wāmpu kospreṃne ṣik tāwiṣ
 jewel:PERL.INS decorated decorated how.many step put:3SG.OPT
tāprenāk sās tkaṃ-ñkāt nuṣā kāl(ñā oki) kāckeyo .
 so.many DEM earth.god roar:3SG.IPF resound:3SG.IPF like joy:INS
tāpreṃ tāprenāk mrācāṣ ṣuñkā³¹⁹ swāñcenāñ ñā(ktas na)[a3]penās
 so.many so.many skull:ABL mouth beams gods men
kāksont oki (puk) śāk kālymentwaṃ satkar .
 blinded like all ten direction:LOC.PL spread:3PL.PRT

'Anytime the Buddha, the teacher, (decorated) and adorned with the 32 marks [of the great man] and the 80 gentle jewels, took a step, like he were a ... mountain, just as many times the earth roared and resounded as if out of joy, and

³¹⁷ Verse: metre 4 x 5 | 7 (5 | 4+3).

³¹⁸ Cf Sieg (1944: 27).

³¹⁹ To be corrected to *ṣuñkāṣ* (abl.).

just as many times rays spread from his skull and mouth towards all ten cardinal points, [which] blinded gods and men, as it were.’³²⁰

A341b2³²¹

kucne nūk : śwātsi yoktsi tāsya āyim-ām ca(m) ///
 what I:F food dring put:INF give:1SG.OPT-3SG.SUFF DEM
 ‘Anytime I gave her food and drink to stock up, that ...’³²²

Thomas also adduced a good example of an irreal concessive clause (1970: 463). In this type of construction, we do not expect an optative in the main clause either, but rather a present, a subjunctive or, as in this case, a nominal clause. The function of the optative clause is to underline that even in such an unrealistic case, the proposition expressed in the main clause would still hold.

A346a3-4

tmānantuyo koṃ-ñāktañ kampo tākiñc tmāṣ lyutār ceṣ
 ten.thousand:INS.PL sun.god:PL circle be:3PL.OPT then more DEM:PL
wañitse
 brilliant³²³
 ‘Even if suns by tens of thousands were forming a circle, those [gods] are more brilliant.’³²⁴

As Thomas remarks (1970: 463-465), the following example, often cited as an irreal conditional with an optative subclause and a nominal main clause *that would have been optative*, too, may have to be interpreted rather as an irreal concessive with a “normal” present clause: ‘no matter how worthy they are, all have to bow’. The latter interpretation may be supported by the aorist in the apodosis of the Old Uyghur parallel.

A253a2-3³²⁵

ārkišoṣṣaṃ puk wrasañ | kṣprene tākiñc bra(m-ñä)ktañ : [1c]
 world:LOC all being:PL if be:3PL.OPT Brahmā.god:PL

³²⁰ Cf Sieg (1952: 26-27) and Carling (2009: 185). Thomas (1970: 457) also cites A59a6-b1, where we find a compound tense *kakmus tākiṣ* ‘anytime she had come’ in the subclause.

³²¹ Verse: end of pāda 95a and beginning of pāda 95b of a metre a: 5 | 5 | 5 | 5, b: 8 | 7 | 7 (4+4 | 4+3 | 4+3), c: 5 | 5, d: 8 | 7 (4+4 | 4+3).

³²² Cf Sieg (1952: 40) and the Chinese parallel (Chavannes 1910-34: II, 252): ‘quand je lui donnais des aliments à porter à Mahākātyāyana, tantôt elle les mangeait elle-même, tantôt elle les donnait à d’autres personnes’.

³²³ If for *pañitse* (Thomas 1970: 463).

³²⁴ Cf Carling (2009: 132).

³²⁵ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

puk cemm āṣāṃ mrāc śpāl-yo | nmāssi caṣi śalpenac 1
 all DEM:PL worthy skull head:INS bow:INF DEM:GEN sole:DU.ALL

‘Even if all beings in the world were Brahṃā gods, all these are worthy to bow with skull and head at his feet.’

MayT38b4-7

yer-suvdaki tnl(ḡ)glar āzrua t(ā)ṇri tāg bilgä biliglig bolsarlar alku
 world:LOC.ADJ being:PL Brahṃā god like wise wise be:COND.PL all
olar munuṇ adakınta āṇitgäli yūküngäli tāgim ärürlär
 DEM:PL DEM:GEN foot:POSS.LOC bow:CVB bow:CVB worthy be:AOR.PL

‘Even if the beings in the world were as wise as Brahṃā, they are all worthy to bow at his feet.’³²⁶

3.4 OTHER USES OF THE TOCHARIAN A SUBJUNCTIVE

In this section, I briefly discuss some other functions of the Tocharian A subjunctive. First, I discuss compound tenses and moods (3.4.1-3.4.4, p 216). Second, I discuss adverbials and particles (3.4.5, p 222). Third, I briefly go into the problem of the usage of the present-subjunctive (3.4.6, p 230).

3.4.1 SUBJUNCTIVE GERUND WITH IMPERFECT COPULA

The construction with a subjunctive gerund and an imperfect copula often denotes counterfactuality, both in subclauses and main clauses. This is easily illustrated with conditionals that suggest an alternative development for the past, which is, of course, contrary to fact. Consequently, the content of counterfactual conditionals must be specific, as they are bound to a real moment in the past to which an irreal alternative is offered.³²⁷

A typical example is the following, where the Buddha has already left the house, so that it is not possible to return to the situation where he had not left it, and still had the possibility to become a worldly king instead of an enlightened one.³²⁸

³²⁶ Cf Tekin (1980: 112) and Müller and Sieg (1916: 405).

³²⁷ I have no reason to assume that present or future counterfactuals were impossible in Tocharian, i.e. of the type *If John had come to the party tomorrow, he would have met you* (Dancygier 1998: 33). Although that type is important to show the character of the construction in English, I would insist that the prototypical counterfactual conditional is past. Not included are fragmentary MY3.7a8 ~ MayH3.7a23-4 and MY3.7b2. Another good example is A347a3-4, cited and translated by Thomas (1970: 468).

³²⁸ Thomas also adduces A21a4 *sām tāpärk waštāṣ lantu* ‘he has now left the house’ to illustrate that this conditional is indeed contrary to fact (1970: 467).

A21a2-4

kuprene waštāš mā lāñcāl šeš štwar dvipāntwā
 if house:ABL not leave:SBJ.GER be:3SG.IPF four continent:PL.PERL
kākmārtik špä(t ñemi)ntuyo kaknu cakravartti wāl
 ruler seven jewel:INS.PL provided cakravartin king
nasāl šeš nāš penu tu penu cami spaktānikāñ
 be:PRS/SBJ.GER be:3SG.IPF I too you too DEM:GEN servant:PL
nas(lye še)mās
 be:PRS/SBJ.GER be:1PL.IPF

‘If he had not left the house, he would have become a cakravartin king, endowed with the seven jewels, a ruler over the four continents, and I too, and you too, we had become his servants.’³²⁹

A313b4-6

kuprene nāš nešā kārśāl šem pracar tanne špālmēmñ
 if I before know:SBJ.GER be:1SG.IPF brother so excellent
tañ puttīśparām pañ try asaṃkhesaṃ kusne kṣaṇa(ñ
 DEM Buddha.rank PAM³³⁰ three asaṃkhyeya:LOC.PL which moment
šom) [b₅] šom kṣaṇā try asaṃkhes kānt kalpas
 one one moment:PERL three asaṃkhyeya:PL hundred kalpa:PL
nāš wlešāl šem sālpmām kapśiñño aviśanākk ats
 I work:PRS/SBJ.GER be:1SG.IPF glow:PRS.PTC body:INS Avīci:LOC EMPH
puttīśparšim ākālāš cam mā o(ñtañ lotka)[b₆]l šem
 Buddha.rank wish:ABL DEM not ever turn.away:SBJ.GER be:1SG.IPF

‘If I had known before, brother, that the Buddha rank is so excellent, and that for each moment, for as many moments as there are in three asaṃkhyeyas, I had had to work three asaṃkhyeyas and hundred kalpas in the Avīci [hell] with glowing body, then I would never have returned from my wish for the Buddha rank.’³³¹

In the example below, a painter considers several options but then decides that the girl that he finds in his room cannot be another guest because she is there to serve him and guests are not to serve other guests; thus, he discards that option as impossible (i.e. counterfactual, since the event is past).³³²

³²⁹ Cf Sieg (1944: 25).

³³⁰ On *pañ*, see footnote 349.

³³¹ Cf Sieg (1952: 33).

³³² Pace Thomas (1970: 471), this is not a question or something similar (“Fragesätze u. dgl.”).

A6a3-4

mā (nu yā)_[a4]talyi şeş lokit lokitāpāk³³³ yärk yatsi
 not but be.able:SBJ.GER be:3SG.IPF guest guest:GEN honour do:INF
wätkässi
 command:INF
 ‘But a guest would not have been charged to pay honour to a[nother] guest.’³³⁴

In the following example, the construction with a subjunctive gerund plus imperfect copula is again found in a subclause, whose counterfactuality is governed by the negation in the main clause.

A62a5³³⁵

(tāmne ṣñi āri)ñc ptāñkāt | pälskāt ke neş yärk
 thus REFL heart Buddha think:3SG.PRT who:GEN before reverence
yā(m)im : [3c]
 do:1SG.OPT
mā kälṣpāt caṃ yärk yāmläṃ | kucne yārka yāmäl
 not obtain:3SG.PRT DEM reverence do:SBJ.GER that reverence do:SBJ.GER
şeş : [3d]
 be:3SG.IPF
 ‘Thus the Buddha thought by himself, «to whom shall I first make reverence?»,
 [but] he found no one worthy of reverence he could have made reverence to.’

Finally, a rhetorical question of the Bodhisattva who has suffered not for his own sake, but for the sake of others, also refers to the past and offers an irreal alternative to it (for more questions, see 3.2.7, p 177).

A67a5

māt nu nāş ṣñi klopyo siñäl şem
 how but I REFL sorrow:INS satisfy:SBJ.GER be:1SG.IPF
 ‘How could I have had satisfaction from my own sorrow?’

3.4.2 SUBJUNCTIVE GERUND WITH PRESENT COPULA

A periphrastic construction with a subjunctive and a present copula, principally found in main clauses, denotes future events. All few clear examples are negated. The expected notion of possibility, the basic meaning of the subjunctive gerund, is in most cases not very clear, but the notion of future is easily derived from it. Not with

³³³ So to be corrected for *lotāpāk* in the manuscript.

³³⁴ Sieg (1944: 9); Pinault (2008: 258).

³³⁵ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

Thomas (1952: 38-39) can this construction in any way be shown to be emphatic (see also 3.7.2, p 279). Only two examples are given below; for a few more, see Thomas (1952: 41). In both, the copula is left out, but it is there in A70b4, A144b2, and A313a8.

A70a3

mā ontam ñuk cwā sārki ymām kārāšaṃ stare
 not ever I:F you:PERL after go:PRS.PTC wilds:LOC hardship
kaś wālyi
 attention put:SBJ.GER
 ‘Not in any way will I care about the hardship in the wilds if I follow you.’³³⁶

A99b3

/// śolāṣ pkānt kapaśaṇi oki cwāṣ pkānt mā ṣtmāl
 life:ABL apart body like you:ABL apart not stand:SBJ.GER
 ‘... like the body without life ..., [so] I will not exist without you.’³³⁷

3.4.3 SUBJUNCTIVE GERUND WITH SUBJUNCTIVE COPULA

A rare construction is that of a subjunctive gerund with a subjunctive copula, termed the “periphrastische Konjunktiv” by Thomas (1952: 41). In two examples, the construction is clearly conditional, and the added value of the subjunctive gerund is not easily recognised: the meaning seems close to a simple subjunctive protasis. If any difference in meaning should be noted, the most probable is in my view possibility because that is what the subjunctive gerund expresses with e.g. a present copula. It must be admitted, however, that the possibility meaning is not imposed by the material.

A74a4-5

kuprene māskit waṣtāṣ lāntāssi mā kālpāl tāṣ ///
 if prince house:ABL leave:INF not obtain:SBJ.GER be:3SG.SBJ
(tā)rkor pyāmā-ṃ waṣtāṣ lāñcāṣ
 permission do:IPV.SG house:ABL leave:3SG.SBJ
 ‘If the prince cannot get to leave the house, ... Give him permission that he may leave the house!’

³³⁶ Cf Sieg (1952: 43). The corresponding passage of the Sanskrit parallel of the Viśvāntara-Jātaka is not precise: *naiva ca khalu me deva vanavāso duḥkha iti pratibhāti* (Hanisch 2005: I, 82, line 9) ‘Nor does life in the forest seem to me such a hardship, my lord.’ (Khoroché 1989: 63).

³³⁷ Cf Thomas (1952: 41).

A67b1-2

(*k_uprene*) *k(ār)m(e)* *rakeyo* *sarās* *puskās* *āṅkarās*
 if true word:INS vein:PL nerve:PL tusk:PL
rsunāmām *ñi :* *ñareṣiṃśśi* *klopāṣ* *pkānt* *klopyo*
 pull.out:PRS.PTC I:GEN hell:ADJ.GEN sorrow:ABL apart sorrow:INS
pāltsāk (*āriṅc* *ñi* *mā* *sasyu* *tāṣ*³³⁸ *canāk*
 mind heart I:GEN not satisfy:PRT.PTC be:3SG.SBJ DEM
kārm(e)tsuneyo *k_upre* *pat* *ṣakk ats* *kālpāl* *tām*
 truth:INS whether or certainly obtain:SBJ.GER be:1SG.SBJ
puttiṣparām : *ṣakk* *āṅkari* *puk* *salu* *ṣitsrāk* *pākār*
 Buddha.rank six tusk:PL all completely again? manifest
tāki-ñi *neṣiṃ* *sā(rkī)*
 be:3PL.OPT-1SG.SUFF before:ADJ after

‘(If) truly I (have not satisfied) my mind (and heart) with sorrow beyond the sorrow of the hell-beings by pulling out my veins, nerves and tusks, or whether [?] by this truth I can attain the Buddha rank, may all my six tusks completely reappear, like before.’³³⁹

The example below is damaged, but it is clearly of general didactic content, giving an answer to the question what is to be understood by “grain consumed at the root”. This general content makes any sort of future reading very unlikely, and therefore the apodosis is probably a present clause.³⁴⁰ However, there is clearly something going on with the subjunctive gerund plus subjunctive copula construction in the subclause because the fruit can no longer be obtained if the root has already been consumed. The only explanation that I can offer is either that *tāṣ* marks this subclause as an eventual clause, or that it is to be taken together with the comparison clauses discussed in 3.3.9 (p 208), where *tāṣ* clauses are irreal (in terms of their English translation). As there are no independent indications to take *kālpāl tāṣ* together as a kind of counterfactual, I suggest that *kālpāl* adds a possibility meaning. Even though such a reading is not directly imposed by the context, it gives a plausible interpretation indeed.

³³⁸ So Thomas (1964: 28); Sieg restituted *siṃsāwe*.

³³⁹ Cf Müller (1922: 61): S89.1[Mz112]b1-8 *sansardakī nīzvanilīg kap-karaṅguda// [yo]lci yerči bolur ārsār m(ā)n .. ///[aṣi]gimn tartar ārkān keyikči ārkā bir k(a)ṣan ōdtā y(e)mā ōvkā kōṇūlūm yūgārū bolmayuk ārsār bu kōni kertū ūzā altī aṣiḡlarim ōṇrāki tāḡ // lūg bolzun* ‘If I have become a guide in the deep darkness of the passions in the samsāra ..., and if there has not, not even for one moment, risen anger in my heart when the hunter pulled out my tusks, may because of this truth my six tusks be ... like before.’

³⁴⁰ Pace Sieg, who switches from a normal real protasis to an irreal one (1952: 26, italics mine): “Denn wenn der Mensch vor der Zeit das Getreide verzehrt, [dann] (*würde er*) die Frucht, die er [bestimmt] daraus bekāme, [schon] (vorher verzehrt haben).”

A65b5-6

k_uyalte yusār praṣṭā wrasom wsār tāpaṣ kucne tmāṣ
 because new? time:PERL being grain eat:3SG.SBJ what DEM:ABL

oko kälpāl tāṣ
 fruit obtain:SBJ.GER be:3SG.SBJ

‘Because if a being consumes the grain before the [right] time, the fruit that he might have been able to obtain from it,’³⁴¹

The last example is fragmentary and its precise context remains unclear. The subject is without doubt Rāma, who has laid siege to the town Lañkā, where he wants to get the captured Sitā back from. Sieg (1944: 13) and e.g. Krause and Thomas (1960: 191) have taken the clause with *kälkāl* as a main clause, which makes good sense indeed (Sieg l.c.): “(Rāma) aber wird, wenn er seinen Zweck erreicht hat, freudig von selbst gehen.” However, a conditional reading is certainly possible, too (I have suggested a possible apodosis just to make clear how I would understand *kälpāl tāṣ* as protatic):

A10b1

(*rām*³⁴²) *nu ṣñi wram kälporā kātkmām kälkāl*
 Rāma but REFL thing obtain:ABS be.glad:PRS.PTC go:SBJ.GER

ṣāññā tāṣ
 self:PERL be:3SG.SBJ

‘But if (Rāma) can go [away] of his own accord, glad after reaching his object,³⁴³ (then we will avoid this damage to our own town).’

3.4.4 PRETERITE PARTICIPLE WITH SUBJUNCTIVE COPULA

The preterite participle can be combined with a subjunctive copula, both in main and subclauses. Although examples are few, they comply with our expectations. Whereas the preterite participle expresses a state, in main clauses the subjunctive may express that this state will hold at a future moment, or in subclauses that the state is the condition for another event etc. See also on the usage in Tocharian B (3.7.4, p 283).

In the first example below, the subjunctive copula probably expresses future tense; in the second and the third, it denotes a condition.

³⁴¹ Instead of Sieg’s (l.c.) restoration *cam sā(m neṣā tāppu tākiṣ)* it is probably better to restore a normal conditional, i.e. *cam sā(m neṣā tāppu)* ‘he has eaten [already] before’, i.e. ‘Because if a being consumes the grain before the [right] time, he has eaten the fruit that he might have been able to obtain from it [already] before.’

³⁴² Or *sām* ‘he’.

³⁴³ Literally: ‘thing’.

A226b2³⁴⁴

– *pat nu kākāñ tāke kākropuṣ tām*
 or now householder:PL be:3PL.SBJ gather:PRT.PTC DEM
praṣṭaṃ : [87a]
 time
 ‘but ... the householders will be gathered that time’

MY3.10b3

/// (*pī*)*ssaṅk kākropu tāṣ tmaṃ tu caṃ kanakṣi*
 community gather:PRT.PTC be:3SG.SBJ then you DEM cotton:ADJ
ñemi cārit pyām
 jewel action do:IPV.SG
 ‘... when the community is assembled, then you handle the matter of the jewel of a cotton cloth!’³⁴⁵

A4b6-A5a2

āntāne nu knānmuneṣiṃ vajramukhenyo ākntsune [A5a1] *kroṣavati*
 when now foolishness:ADJ Vajramukha wisdom Kroṣavati
*tātrāskus*³⁴⁶ *tāṣ tām praṣṭaṃ puk kāryapāmtwāśśi nkalune*
 bite:PRT.PTC be:3SG.SBJ DEM time all harm:GEN.PL ruin
māskatār puk pārkowāntwāśśi śkaṃ sātkā(lu)_[a2]*ne māskatār*
 be:3SG.PRS all advantage:GEN.PL and spread be:3SG.PRS
 ‘Well, if the foolishness Kroṣavati is bitten through by the wisdom Vajramukha, at that moment the ruin of all harms is there, and the spread of all advantages.’³⁴⁷

3.4.5 ADVERBIALS AND PARTICLES

Unlike Tocharian B (3.7.5, p 287), Tocharian A has only a limited number of number of modal particles. This is not to say that the language has a shortage of particles, and even less so that they are rare. On the contrary, especially the emphatic clitic *-k* and the emphatic particle *ats* (and *atsaṃ*) are very frequent, also combined, e.g. *nāṣ* ‘I’, *nṣāk* ‘me’, i.e. ‘I, not you’, *nṣākk ats*³⁴⁸ ‘just me; exactly me’; quite some words do not even occur without *-k*, or only rarely (Sieg, Siegling and Schulze 1931: 302-303, 306-

³⁴⁴ Verse: metre normally 4 x 7 | 7 (4+3 | 4+3), but this line deviates.

³⁴⁵ Cf Ji (1998: 189). Thanks to the identification of the parallel fragment A446 (Burlak and Itkin 2004: 30), his translation can be revised slightly: it is now clear that the following *ā(nant)* ‘Ānanda’ starts a new clause. The OÜy. parallel in MayH3.10a26-28 is too damaged.

³⁴⁶ So to be corrected for *tātrās* in the manuscript.

³⁴⁷ Cf Sieg (1944: 8).

³⁴⁸ *ats* entails gemination of the preceding consonant, i.e. *nṣāk ats* becomes *nṣākk ats* automatically.

307). However, since these particles have no special connection to the verb or the clause, they are of no relevance for an understanding of the modal system.

Particles that could or do have modal uses are *aśśi* and *kar*;³⁴⁹ not considered are interjections like *ote* ‘o’ and *hišt* ‘hey’ (Sieg, Siegling and Schulze 1931: 319–321).

aśśi ‘perhaps’

According to Sieg, Siegling and Schulze (1931: 302), *aśśi* is “meistens Fragepartikel, den Schlußkonsonanten des vorhergehenden Wortes verdoppelnd, überwiegend direkt hinter Interrogativpronomen und Interrogativadverbium”. It is further attested a couple of times after a verb in questions, and once “mitten in der Erzählung, wo für eine Frage kein Platz ist” (1931: 190). Since the context of the latter example is rather clear, I take that as a starting point: a master mechanic has fooled his guest, a master painter, by giving him a mechanical girl servant. When the painter found out, he was so mad that he in turn fooled the mechanic by painting himself hanged on the wall. The nuance *aśśi* introduces here is thus very probably one of assumption, i.e. the mechanic has not seen himself that the painter touched the girl out of love, but only sees him hanging and *concludes* it.

A9a1³⁵⁰

<i>tun̄kyo</i>	<i>∕śśi</i>	<i>tsit</i> ³⁵¹	<i>śominām</i> †	<i>wekat</i>	<i>yaṃtār</i>
love:INS	AŚŚI	touch:3SG.PRT	girl	break.down:3SG.PRT	mechanism
<i>cam</i>	<i>kipyo</i> : [1c]				
DEM	shame:INS				
<i>sruksāt</i>	<i>āñcām</i>	<i>sām</i>	<i>pekant</i> †	<i>lānkāṣ</i>	<i>ṣpinac</i>
die:3SG.PRT	self	DEM	painter	hang:3SG.PRS	nail:ALL
					<i>pālkāc</i>
	<i>kraṃś</i> : 1				
	good:PL				

³⁴⁹ *paṃ*, listed among particles in Sieg, Siegling and Schulze (1931: 309), is called an “Adv. od. Part. von unbestimmter, aber jedenfalls wohl intensiver Bedeutung” by Thomas (1964: 113). He thus ignores Sieg’s proposal that it means ‘dear’ (1944: 8). Although I have the feeling that both are wrong, I do not have a ready solution. In any case, *paṃ* does not seem to add anything modal, and the idea of an “intensive” meaning can be discarded. Together with *yatsi* ‘do’, it seems to mean ‘serve’ indeed (Ji 1943: 323; Sieg 1944: 8), which hardly points to intensivity – nor to modality, for that matter – and Thomas’ proposal to render *paṃ māsk-* with “im tiefsten Wesen da sein” (1964: 113) follows from the same idée fixe. I suspect that the particle entails a certain type of reciprocity or distributivity: A7b6–A8a1 *māmtne kratwsaṃ ṇi tun̄k tāk* † (*tā*_[A8a1]*m*)*n*(*e*)*k kapśñam̄ mskatār paṃ* ‘As my love was towards rags, just so it is to the [living] body in turn.’

³⁵⁰ Verse: metre 4 x 7 † 7 (4+3 † 4+3).

³⁵¹ So to be corrected for *tsis* in the manuscript.

‘Presumably out of love he touched the girl and the mechanism broke down. Out of shame the painter killed himself: he is hanging from the nail – look, o good ones!’

All other (possible) non-interrogative examples of *aśśi* are too fragmentary to be of any use, except for one from the Maitreyasamitināṭaka, unfortunately without Old Uyghur parallel. In the preceding, somebody – probably the sacrificial assistant – concludes that the brahmin Nirdhana is without glory (see MY1.5a8 ‘If you are from Madhyadeśa, you will indeed be without glory’), and then the same speaker continues with an explanatory strophe, introduced with *k_uyalte* ‘why that?’. At the end of the strophe, Nirdhana speaks again, so that it is very improbable that Nirdhana is also the speaker of that strophe; more probably, it is the same sacrificial assistant. The fact that the strophe elaborates on an assumption makes it very likely that *aśśi* has approximately the same value as in the above example.

MY1.5a8-b1³⁵²

ṣakkaṭsts aśśi tu [b₁] /// [1a]
 certainly AŚŚI you
 (*mā*³⁵³) *kāswone kaklyuṣu* † *naṣt mā tuñk naśśi*
 not virtue hear:PRT.PTC be:2SG.PRS not love be:3SG.PRS:2SG.SUFF
metraknaṃ † *tāmyo tṣaṃ mā kakmu ʃet* : [1b]
 Maitreya:LOC therefore here:LOC not come:PRT.PTC be:2SG.IPF
 ‘Certainly you must ... ; you have (not) heard of [his] virtue, [and] you have no love for Maitreya, so that is not why you have come here.’³⁵⁴

An intricate, but nevertheless helpful example is also the following, where the speaker insults the hearer, blaming him of stupidity, for which he suggests a reason, likewise insulting.

MY1.5a7

hai tālo k_uciṃ naṣt aśśi talke-māṃñe okāk trāñktsi
 hey miserable idiot? be:2SG.PRS AŚŚI sacrificial.site until say:INF
mā kārsnāt
 not know:2SG.PRS
 ‘Hey, miserable one! You must really be an idiot, [as] you do not even know [how] to say “sacrificial site”!’³⁵⁵

³⁵² Verse: metre a: 5 | 5 | 5 | 5, b: 8 | 8 | 7 (apparently 5+3 | 5+3 | 4+3), c: 5 | 5, d: 8 | 7.

³⁵³ Plus one more akṣara; perhaps *nu* ‘but’ or *pe* ‘and’.

³⁵⁴ Cf Ji (1998: 41).

³⁵⁵ Cf extensively on this passage Pinault (2002a: 322, 324–325 and passim).

When *aśśi* follows an interrogative pronoun or adverb, its function is very difficult to assess, and it must have been bleached out substantially. In some questions without question words, or where at least *aśśi* does not directly follow a question word, it seems that it adds an assumption indeed: it introduces a possible answer to the question, ca. ‘perhaps, by any chance’. Two good examples follow below. In the first, the Bodhisattva elephant wonders why the hunter is crying, and asks him whether it may be because he hurt him with his heavy body.³⁵⁶

A79b2

///-pāṣlune ypamām wraṣāl ślā aśśi
 protection do:PRS.PTC harm bring:1SG.PRT AŚŚI
 ‘Have I perhaps brought [you] harm in offering³⁵⁷ [you] protection?’³⁵⁸

Even if its meaning after question words is difficult to assess, it is striking that *aśśi* is frequently found in reported or embedded questions, as the following (attestations are conveniently assembled by Carling 2009: 18).³⁵⁹

MY3.1a7

tāmyo tāpārk skamat prakāṣtār kupre aśśi ptāñkāt kāṣṣi
 therefore now always ask:3SG.PRS whether AŚŚI Buddha teacher
 lo kumnā(ṣ)
 PCL come:3SG.PRS.
 ‘Therefore she now keeps asking whether the Buddha, the teacher is about to arrive.’³⁶⁰

A311b4

kupre sañce yāmtrā kuṃyall aśśi täpprem märkampalši pñi
 whether doubt do:3SG.SBJ why AŚŚI so law:ADJ merit

³⁵⁶ Compare the parallel from the Chinese version of the Sūtrālaṅkāra in the translation of Huber (1908: 406): “Je t’ai invité à te cacher sous mon ventre, parce que je craignais que les autres éléphants ne te fissent du mal. Est-ce que le poids de mon corps t’écrase?” Without this parallel, the Tocharian A passage can hardly be understood, and I do not agree with Lühr, who claims that the Tocharian question has an “Antworterwartung NEIN” (1997: 113) – it is just one of the possible explanations the Bodhisattva can think of at that moment.

³⁵⁷ Literally: ‘doing’, ‘making’.

³⁵⁸ Sieg (1952: 13).

³⁵⁹ This reminds me of an informal use of Dutch *of* ‘whether’, which may follow the question word in embedded questions (apparently with emphatic effect), e.g.

Ik weet niet wanneer of hij komt.
 I know not when whether he comes
 ‘I don’t know when he comes.’ (Haeseryn e.a. 1997: 319).

³⁶⁰ Cf Ji (1998: 145). For the Old Uyghur parallel see 3.2.8 (p 180).

tsopatsām weñār

great say:3PL.PRT

‘Whether he will question why they have said [that] the merit of the law is so great?’³⁶¹

I can only guess that in non-embedded questions the particle has a softening function, which I would derive from the fact that it includes possible answers in the question, and so makes it less “wild”. This function is perhaps present in the example below, where clearly the question is not totally open, but the speaker has already several options in mind:³⁶²

A6a2-3

kuss aśśi sās yaṃtrācā(res [a₃] mā)skatār ṣar ckācar epe
 who AŚŚI DEM mechanic:GEN be:3SG.PRS sister daughter or

śām epe spaktānik epe nṣākk oki lokit kakmus nām
 wife or servant or I:EMPH like guest come:PRT.PTC be:3SG.PRS

‘Who may she be? Is she the sister, the daughter, or the wife, or the servant of the mechanic, or has she come as a guest, just like me?’³⁶³

kar ‘just’

“*kar* hängt sich in den meisten Stellen unselbständig an eine finite Verbalform an, ohne daß irgendwo seine besondere Funktion sich deutlich offenbarte”, according to Sieg, Siegling and Schulze (1931: 307). For two deviating examples where they could not establish its grammatical function either, Sieg later proposed “*schon*” (1944: 10), in a sense ‘only, already’ that invites a comment ‘can you imagine!’ (i.e., ‘can you imagine what would happen in another situation!’).³⁶⁴

A21b3-4

o(t)e täpreṃ aṇumāski oñi cmol kar taṃne wkānyo
 o so wonderful human birth KAR that way:INS

kāswoneyo kaknu tāṣ
 virtue:INS provided be:3SG.SBJ

‘O so wonderful is the human birth already, if its endowed with such virtue!’³⁶⁵

³⁶¹ Cf Thomas (1957: 239), Schmidt (1974: 343).

³⁶² Evidently, I agree with Lühr (1997: 112-114) that *aśśi* is not a question particle.

³⁶³ Cf Sieg (1944: 9).

³⁶⁴ Cf Krause and Thomas (1960: 172): “*doch, schon*”.

³⁶⁵ Cf Sieg (1944: 25): “Ach, wunderbar ist schon die Menschengeburt, wenn sie mit solcher Art Vorzug ausgestattet ist.”

A7b1-2

(h)ai šokyo nu kakätwu tākā yaṃtrācāreṃ
 o very now deceive:PRT.PTC be:1SG.PRT mechanic
 kāṣṣinā ote täpreṃ enklis tampewätsune o(te tä_[b2]preṃ)
 teacher:PERL o so passion:GEN power o so
 ākntsuneiyis empelune kratswsaṃ kar wrasom täpreṃ prākār
 ignorance:GEN horror rag:LOC.PL KAR being so firm
 tuñk yāmtrā
 love do:3SG.SBJ

‘O dear! I have been terribly deceived by the master mechanic! O such [is] the power of passion! O such [is] the horror of ignorance! If a being loves even rags so intensely!’³⁶⁶

Although from these two examples one could get the impression that *kar* introduces the following subjunctive clause, it rather bears on the words directly preceding, and in most cases it is indeed found just before the punctuation mark “:” and after a finite verb, which is several times in the subjunctive, but may also be in the present or the preterite.³⁶⁷ The Yānqí fragments of the Maitreyasamitiñātaka have yielded four certain and two restored new examples, most of them with good parallel Old Uyghur passages. Strikingly, in two instances, no trace of it is seen in the Old Uyghur version, but in two other instances, Old Uyghur modal markers have been added: *ärmiš* among others ca. ‘apparently’ (Erdal 2004: 273-275) in the first, and *ärki* ca. ‘I wonder’ (Erdal 2004: 350) in the second.

MY2.1a8 = A214a4-5

bā(dhari trānkāṣ māgaṭṣin)ās ypeyāntwaṃ pāṣānak ṣulaṃ
 Bādhari say:3SG.PRS Magadha:ADJ land:LOC.PL Pāṣānaka mountain:LOC
 māskatrā kar
 be:3SG.PRS KAR

‘Bādhari says, «He is on mount Pāṣānaka in the lands of Magadha».’³⁶⁸

MayH2.1b3-4

ötrü badari braman inčä tep tedii (:) [b4] magit eltä
 then Bādhari brahmin thus say:CVB say:PRT Magadha land:LOC
 pašan_(a)k tagda y_(a)rlıkar ärmiš
 Pāṣānaka mountain:LOC RESP:AOR ÄRMIŠ

³⁶⁶ Sieg (1944: 10, cf also Pinault 2008: 259): “... ach die Macht der Dummheit, wenn ein Mensch schon zu Lappen so heftig Liebe faßt!”

³⁶⁷ Cf A108a5, A157b4, A376b1; before “||” in A157b4; before a clause starting with *māmt* in A149b3, with *kosne* in A159b5, with a punctuation mark and *āntāne* in A269a5.

³⁶⁸ Cf Ji (1998: 69).

‘Then Bādhari the brahmin said, «Apparently he is on mount Pāṣāṇaka in the land of Magadha!»³⁶⁹

MY3.1b7

(*kus*) *şurm tāpärk šäkkeşi lāts mäccāk kar kappās sāryā*
 what reason now Śākya:ADJ queen herself KAR cotton sow:3SG.PRT
 ‘What is the reason now that the queen of the Śākyas has sowed the cotton just by herself?’³⁷⁰

MayH3.1b23-26 (= MayT121a1-4)

nä sav ärki .. nä üčün öz iligin kábáz-z tarıp
 what thing ĀRKI what for self hand:INS cloth plant:CVB
tod tolı-ı kisi osuglug böz tokudı-ı ärki
 completely completely woman like cotton weave:PRT ĀRKI
 ‘Was ist das wohl für eine Sache? Warum hat sie mit eigener Hand die Baumwolle gepflanzt und wie eine niedrige Frau den [Baumwoll]stoff gewebt?’³⁷¹

However, the evidence of these Old Uyğur passages is not univocal, and worse still, it does not fit the meaning established so far very well. In MY3.1b7, the example directly above, *kar* seems to reinforce *mäccāk* ‘she herself’ rather than modify the whole sentence. Therefore, I would side with Ji, who takes ‘only’ as a default translation, which yields a credible interpretation in the following example.

MY1.7a5

(*śuddhavāsiñ nākta*)ñ *bram ñkāt śasārsār kar*
 Śuddhāvāsa:ADJ god:PL Brahmā god let.know:3PL KAR
 ‘... (the Śuddhāvāsa gods) told only God Brahmā.’³⁷²

³⁶⁹ Cf Geng and Klimkeit (1988: 116-117). *ärmiš* is not translated by Geng and Klimkeit, if it is not “sein” in “Im Reich Magadha auf dem Pāṣāṇaka-Berg geruht er zu sein.” (1988: 117; they mark the form as uncertain, “*ärmiš*”, but Yūsüp, Xoǵa and Qāmbiri 1988: C, 143 read the same); nor is it by Yūsüp, Xoǵa and Qāmbiri (1988: U, 48; C, 32). Erdal (2004: 528-529) makes special mention of the use of *yarlıka-* with a locative complement, which “signifies ‘to come a certain place’” (p 528). However, ‘come’ is far off from the Tocharian text, and it does not fit the Old Uyğur parallel very well either. Therefore I have tentatively translated simply ‘is’ instead.

³⁷⁰ Cf Ji (1998: 147).

³⁷¹ Geng and Klimkeit (1988: 174-175), Tekin (1980: 65).

³⁷² Ji (1998: 51). In the Old Uyğur parallel, the verb is restored, but the next clause is completely parallel: MayH1.13a21-22 *śudavas t(ä)ñri yerintä[ki] [a22] t(ä)ñrilär äz[rua] t(ä)ñrikä u[kitmiš]* ‘Die Götter im Götterhimmel Śuddhāvāsa [teilten es] dem Gott Brah[mā] mit.’ (Geng and Klimkeit 1988: 96-97; Yūsüp, Xoǵa and Qāmbiri 1988: C, 134 read *ukitmiš*).

Although the example below is fragmentary, it can receive a meaningful interpretation with the help of the Old Uyghur; we can interpret ‘if as one [human] being he has *already* so many virtues’, etc.

MY1.9b6

ote täpreṃ weyeṃ sas wrasom kar tanne [b₇] (*wkänyo*)
 o so wonderful DEM being KAR such way:INS
 ‘Oh how wonderful! this one being ... thus only’³⁷³

MayH1.16a1-4

bir [a₂] *kiši yalḥok bolup bu munča törlüg ülgüsüz* [a₃] *sansız*
 one person human be:CVB DEM such ADJ measureless countless
ädgü ärdämkä tükäl [i] *ärsär.. muntada* [a₄] *y(e)mä taṇ*
 good virtue:DAT completely be:COND here and wonder?
nägü bolgay
 how be:FUT

‘Wenn er ein Mensch geworden ist und derartig unermeßliche, zahllose gute Tugenden völlig besitzt, wie wird (einer) ihm auch gleichartig sein?’³⁷⁴

Finally, although the content remains unclear, *kar* is likely to reinforce the preceding *šom* ‘one’ in the following example:

A108a5

/// [štā]ñcam pat wunäš šom wil lawat-äṃ kar :
 ? or two:ABL one WIL send:3SG.SBJ-3SG.SUFF KAR
 ‘... or if from the second he sends her *just* one wil.’³⁷⁵

As for MY2.1a8 ‘just’ is not satisfactory, I assume that *kar* is to be interpreted in the light of Bādhari’s amazement about the appearance of the Buddha (*ärmiš* can have a sense of amazement, too). Perhaps the particle originally meant ‘only, just, already’, but it was often used in “admirative” contexts to express surprise and amazement, and this admirativity became a slightly independent part of its meaning.³⁷⁶ I would propose the following pathway:

³⁷³ Ji (1998: 61).

³⁷⁴ Geng and Klimkeit (1988: 108-109).

³⁷⁵ Without doubt it is Nanda, who, having left his wife Sundarī, is to give her some sign or message.

³⁷⁶ Needless to say, my little investigation fully confirms Hilmarsson’s etymological connection with Tocharian B *ka* ‘just’ (1996: 82-83); yet I see no evidence for a meaning like German “doch”, nor for one like English ‘indeed’. Neither have I found confirmed Carling’s ‘yet, really, for sure’ (2009: 102; although her characterisation “downgrading particle” is

JUST, ONLY → ALREADY, SOONER THAN EXPECTED → CONTRARY TO EXPECTATION, SURPRISE

3.4.6 THE PRESENT-SUBJUNCTIVE

The present-subjunctive is only a minor category in Tocharian A, certainly in comparison to Tocharian B. Therefore, the number of verbs that qualify for a syntactic investigation of the present-subjunctive is rather small, and, evidently, the number of useful text passages is even smaller. As far as can be judged from this limited corpus, there is no special usage of the present-subjunctive: it can be used in exactly the same way as presents and subjunctives, and the precise function has to be inferred from the context. Whereas examples of present-subjunctives used like presents can actually be found, certain instances of subjunctive usage are lacking almost completely. Below, I cite two passages: the first is a main clause where it seems that a subjunctive is required because of the future reference, and the second is a subclause where the indefinite meaning would probably need a subjunctive.

MY3.2b3

tāpreṃ³⁷⁷ koṃsā parmā k_ulewāñ klyoseñc
 thus day:PL.PERL surely woman:PL.NOM hear:3PL.SBJ
 ‘Thus women may surely hear (it) as from today.’³⁷⁸

MayH3.2b14-15

büküntä maru kunčular nom t[1]ηlaz[un]
 day:LOC further princess:PL law hear:VOL.3SG
 ‘May the women hear the law as from today!’³⁷⁹

A274b7³⁸⁰

/// r källymentwāṣ wināse | śla āñcālyi : [1c]
 direction:ABL.PL revere:3PL.PRS/SBJ with añjali

actually correct for a number of examples) nor Winter’s “erst; zuerst” (1991b: 317). Further, it is certainly too rash and vague to call the particle “emphatic”.

³⁷⁷ The preceding */// (märka)mpal päklyoṣās* ‘Listen to the law!’ is missing in the OÜy. version.

³⁷⁸ Cf Ji (1998: 151).

³⁷⁹ Cf Geng and Klimkeit (1988: 176-177). The Old Uyghur translation is somewhat short, and it is not totally clear whether this is a grant (which it should be according to the development of the drama), or rather a command or a wish (which it seems in the German translation of Geng and Klimkeit “Von heute an mögen auch die Frauen das Gesetz hören!”) or even a kind of prediction (‘they will here the law’). Logically, the TA should be translated either as ‘may the women listen to the law’ (a wish) or as ‘the women may listen to the law’ (a grant), with a preference for the second. It cannot be excluded that the OÜy. translator misunderstood this function of the TA subjunctive.

³⁸⁰ Verse, metre probably 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

yas penu caṣ ykoṃ o(ṣeñi) † [1d]

you too DEM by.day by.night

‘(No matter how many gods) ... from (all) directions revere (Brahmāvati) with *añjali*-hands, you too by day [and] (by night) ... him ...’

MayH11.3b24-29

näčä y(e)mä ulug küčlüg t(ä)ṃrilär törtin yṃak
how.many and great strong god:PL four:ABL direction

ayayu agarlayu yūkünsärlär .. sizlär y(e)mä barıp k(ä)ntü
honour:CVB honour:CVB bow:COND.PL you:PL and go:CVB own

k(ä)ntü kuvragıñızlar birlä tünlä kü[ntüz] tört
own community:2PL.PL together by.night by.day four

yṃaktın küyü küzädü [barı]ṃlar
direction:ABL protect:CVB protect:CVB go:IPV.PL

‘Wie viele große starke Götter der vier Richtungen sich auch vor (Brahmāvati) verehrend (Hend.) verneigen mögen, geht auch ihr und schützt sie [Tag] und Nacht mit euren je eigenen Scharen von allen vier Richtungen!’³⁸¹

3.5 THE TOCHARIAN B SUBJUNCTIVE IN MAIN CLAUSES

In main clauses, the Tocharian B subjunctive principally denotes future tense. It has many semantic nuances and often a rendering by an English *will* future is not satisfactory, but these nuances probably follow from inferences. I first adduce bilinguals in order to show that these suggest nothing but future for the Tocharian B subjunctive (3.5.1, p 231). Then I present some examples in which the subjunctive clearly functions as a mirror to the past in stylistics, and so clearly was used to express the notion of future tense (3.5.2, p 233). I then continue to focus on evidence from the relation between the event and the subject (3.5.3, p 236), the speaker (3.5.5, p 238), and the hearer (3.5.6, p 239; first persons are discussed in 3.5.4, p 236). This evidence shows that the subjunctive is free of modal value. Good examples of neutral, predictive subjunctive futures are given in 3.5.7 (p 242), whereas the use of the subjunctive and other moods in (rhetorical) questions is discussed in 3.5.8 (p 243), and its use in 1pl. address in 3.5.9 (p 245). The relation between the subjunctive and other verbal categories is investigated in 3.5.10 (present, p 245), 3.5.11 (optative, p 247), and 3.5.12 (imperative, p 249).

3.5.1 BILINGUALS

A rich collection of Sanskrit - Tocharian B bilinguals is offered by the Udānavarga. As noted in 3.1.3 (p 158), these bilingual correspondences are to be treated with much care. First of all, the Sanskrit is versified and formulaic, it contains many metaphors

³⁸¹ Geng, Klimkeit and Laut (1988: 323, 342).

and style figures, and it is written in the artificial classical language that replaced earlier Prākṛit versions. Second, the Tocharian B translation is not a real translation, but a very precise word-for-word translation, full of calques; in fact, it comes very close to interlinear glossing as it is usual in modern linguistics.

In view of all this, we have to be very cautious with evidence from these Udānavarga bilinguals. However, as a first hint, they give clear results. The majority of the Tocharian B subjunctives translates a Sanskrit future, chiefly in main clauses, but sometimes in subclauses, too. Only in a very limited number of cases does a Tocharian B subjunctive render another Sanskrit category; this other category is exclusively the present, and never in main clauses. I have found no examples of Sanskrit futures *not* rendered by a Tocharian B subjunctive.³⁸²

IT862b1, U2b4

/// *plāsk(au) tumem ñi mā tākat*
think:1SG.SBJ therefore me not be:2SG.SBJ

Uv2.1c-d

na tvāṃ saṃkalpayiṣyāmi | tato me na bhaviṣyasi
not you imagine:1SG.FUT therefore I:DAT not be:2SG.FUT
'I will not imagine you, so you will not arise from my [imagination].'³⁸³

THT1333a1

(*kār*)*s(au)ca takat*³⁸⁴
knowing be:2SG.SBJ

Uv33.60d

hy akṛtajño bhaviṣyasi
PCL knowing.the.uncreated be:2SG.FUT
'you will be knowing the uncreated [nirvāṇa]'³⁸⁵

Other persons than the 1sg. and the 2sg. are attested as well, but only with present-subjunctive forms in the Tocharian B translation, so that they are useless as proof here.

³⁸² There are Sanskrit futures translated by present-subjunctives, but as I argue, that is just a morphological, not a syntactic category. Consequently, we can just take them as subjunctives when they render Sanskrit futures.

³⁸³ Uv2.1a-b *kāma jānāmi te mūlaṃ* [a] *saṃkalpāt kāma jāyase* [b] 'O desire, I know your root: you, desire, are born from the imagination.' (Bernhard 1965: 112; Chakravarti 1930: 19).

³⁸⁴ Sic, for regular classical *tākat*.

³⁸⁵ Uv33.60a-c *chindhi srotaḥ parākramya* [a] *kāmāṃ praṇuda brāhmaṇa* [b] *saṃskārāṇāṃ kṣayaṃ jñātvā* [c] 'Cut off the stream with energy, drive off the desires, o brahmin. Knowing the end [destruction] of the cycles [of birth], ...' (Bernhard 1965: 494; Hahn 2007: 154).

In other bilingual texts, we find the same correspondence; because of the fragmentary contexts, it is difficult to decide how automatic the rendering of the Skt. future by the TB subjunctive is:

B189b4

[SKT:] /// (vista)reṇa vakṣyāma • [TB:] taisaktuka postam³⁸⁶ • tane
 in.detail say:1PL.FUT likewise afterwards here
 ortsesa³⁸⁷ weñem
 in.detail say:1PL.SBJ
 ‘... we will say in detail • likewise we will afterwards say here in detail’

B542a1

[SKT:] (utsā)dayiṣyāmi • [TB:] neku-me •
 destroy:1SG.FUT destroy:1SG.SBJ-PL.SUFF
 ‘I will destroy • I will destroy them •’³⁸⁸

The fragmentary passage below can receive a reliable interpretation thanks to its identification by Waldschmidt as the translation of *vr̥jikaraṇīyāni kariṣyanti* ‘[as long as] they will carry out the duties of the Vṛji’s’ MPS1.22 (1951: 110; 1955: 16).

B542a5

///lñe yamantār •
 do:3PL.SBJ
 ‘they will do ...’

Although the future has some modal value in classical Sanskrit, i.e. it may express a wish, possibility or intention (Renou 1996: 461), it is the principal form to denote future events.³⁸⁹ At least the passages cited above clearly suggest that the Tocharian B subjunctive denotes future tense.

3.5.2 NOTION OF FUTURE

The notion of future is often conveyed with the adverb *postām* ‘afterwards; in the future’; sometimes it is also expressed in contrast to a past action. In the latter case,

³⁸⁶ For *postām*.

³⁸⁷ For classical *aurtsesa*.

³⁸⁸ Mahāparinirvāṇasūtra 1.3 or 1.6, see Waldschmidt (1955: 16; cf also Schmidt 1985: 430-431), who gives the context as: “König Ājātaśatru von Magadha ist seinen nördlichen Nachbarn, den Vṛjis, verfeindet und verkündet: „Ich will sie vernichten, ich will sie ins Verderben bringen, ich will sie in Unglück und Elend stürzen“.”

³⁸⁹ I have found no correspondences with the Skt. periphrastic future (Renou 1996: 491-493), although this formation is (rarely) attested in Buddhist Sanskrit, too (Edgerton 1953: I, 152).

the past is sometimes marked with the adverb *nauṣ* ‘before; in the past’. As a stylistic device, past, present and future may be mentioned all three to cover “all times” and underline the definiteness of a statement.

In the first example, the present is lacking, and the context is fragmentary, but the formula is known from Sanskrit. The Tocharian B preterite *weña* corresponds to the Sanskrit past participle *uktaṃ*; the Tocharian B subjunctive *wem* renders the Sanskrit future *vakṣyate*.

B173b6

(*bhavāṅkā*)*nta* *nauṣ* *päst* *weña* • *somona* *ñke* *postām*
bhavāṅgas before PCL say:3SG.PRT single:PL then afterwards
wem •
 say:3SG.SBJ

‘... he has stated the *bhavāṅgas* [elements of existence] before; he will state the single things afterwards.’³⁹⁰

In the following example, all three tenses are expressed: past, present and future.

B597b1³⁹¹

w(e)ñāre † *weskem* *wat* *te* *postä(ṃ)* *w(e)ñem* : [69a]
 say:3PL.PRT say:3PL.PRS or DEM afterwards say:3PL.SBJ
 ‘... they said before, or they say [now, or] will say after this.’³⁹²

In the below fragment from the casuistics of lying, we find a beautiful example of crossed tenses, i.e. before uttering the words that may or may not have to be classified as a lie, this utterance was in the future, at the time of uttering it was the present and afterwards it had become the past.

NS58a4 = B336a7

/// *s(e)*³⁹³ *pälskanaṃ* *waike* *weñau* • *weskemane* *aiśtrā*
 which think:3SG.PRS lie say:1sg.sbj say:PRS.PTC know:3SG.PRS-SBJ
waike *weskau* • *postām* *aiśtrā* *waike* *weñāwa*
 lie say:1SG.PRS afterwards know:3SG.PRS-SBJ lie say:1SG.PRT

³⁹⁰ Cf a Sanskrit parallel in the *Abhidharmakośa* of Vasubandhu: “Les autres membres de l’existence ne sont pas expliqués ici. Les autres ont été expliqués ou seront expliqués plus loin.”, where the relevant formula is *uktaṃ ca vakṣyate cānyat* (de La Vallée Poussin 1980: III, 116).

³⁹¹ Verse: metre 4 x 7 † 8 (4+3 † 3+5).

³⁹² The adverb *ñake* ‘now’ is certainly not used, but since 4 akṣaras are missing at the beginning of the pāda, *w(e)ñāre* was probably accompanied by *nauṣ* ‘before’.

³⁹³ Relative.

‘which (monk) thinks, «I will tell a lie», [and] telling it he knows, «I am telling a lie», [and] afterwards he knows, «I have told a lie», ...’

B336b1 (first part) and NS58a5 (second part)

wai(k)e (w)e(ñ)au weskemane aištrā waike /// /// (po)stām
 lie say:1SG.SBJ say:PRS.PTC know:3SG.PRS-SBJ lie afterwards

mā aištrā mā te waike šai 60³⁹⁴
 not know:3SG.PRS-SBJ not DEM lie be:3SG.IPF

‘... «I will tell a lie», [and while] speaking he knows, «(I am telling) a lie», [but] afterwards he does not know it [anymore], then it was no lie.’

NS58a5 = B336b2

nauṣ mā pālskanaṃ waike w(e)ṃtsi • tetekāk špā (we)ššā(ṃ)³⁹⁵
 before not think:3SG.PRS lie say:INF suddenly and say:3SG.PRS

weskemane [NS58a6]

say:PRS.PTC

‘[If] beforehand he does not intend to tell a lie, [and] suddenly he tells [one while] speaking, ...’

NS58a6 = B336b3

/// weskema(n)e (ai)štrā waike³⁹⁶ weskau weṣnak
 say:PRS.PTC know:3SG.PRS-SBJ lie say:1SG.PRS say:3SG.PRS≠EMPH

cau wāntare • mā no sū wāntare waike māsketrā 60³⁹⁴
 DEM thing not but DEM thing lie be:3SG.PRS

‘... [if] speaking he knows, «I am telling a lie», [and] indeed he says that thing, then that thing is not a lie.’

For edition, commentary and analysis, cf Pinault (1994: 136-184, especially p 166). Apparently, the main verbs are all in the present: with the situation “before” we find the prs. *pālskanaṃ*, with the situation “now” we find the prs.-sbj. *aištrā* and for “afterwards” again *aištrā*; on the basis of the unchanged tense of *pālskanaṃ*, I assume that *postām*, too, goes together with a present. As a parallel, Pinault adduces the Pāli *pubbevaṃ assa hoti musā bhaṇissan ti bhaṇantassa hoti musā bhaṇāmīti bhaṇitassa hoti musā mayā bhaṇitan ti* ‘Before he has lied he knows, «I am going to lie»; while lying he knows, «I am lying»; having lied he knows, «I lied.» (Pinault 1994: 166, citing Horner 1940: 167 and Oldenberg 1882: 2, lines 29-31).

Although the grammar of Sanskrit or Indian models certainly played an important role, these examples show very clearly that if the notion of future had to be expressed, it was expressed with the subjunctive in Tocharian B. Whether the reverse relation holds as well, is discussed below; at this point, it is still possible that the future notion is inferred from a more basic meaning of the subjunctive.

³⁹⁴ <60> is here used as a punctuation mark.

³⁹⁵ B336b2: *weṣām •*.

³⁹⁶ B336b3: *waike te*.

3.5.3 SUBJECT

Unambiguous examples where the future event is advantageous or disadvantageous for the subject (other than 1st person subjects) are rare. I have found only one good example where the event is clearly to the advantage of the 2nd person subject.

B286a3³⁹⁷

tune nke twe | wīna källāt | m̃ āklyilñene 19
 therein then you pleasure obtain:3SG.SBJ not in.study
 'For therein you will find pleasure, not in study.'³⁹⁸

3.5.4 FIRST PERSON

First person subjects are discussed separately because speaker and subject coincide. For first person subjects, conflicting examples as to the desirability of the event are easily found. With events that work out positively for the subject and the speaker, a translation with 'want' or 'wish' is often possible, and in some cases it yields a much more natural translation than a neutral *will* future.

In the example directly below, the first subjunctive *tākam* 'we will be' refers to an action the speaker, the god Guṇasāmpada, wishes to see fulfilled. As I argue in 3.7.5 (p 288), the particle *nai* probably signals that Guṇasāmpada seeks the agreement of the addressee.

B77.1-2

c(ām)p(a)mñeccu tus(ā)ks(a) nai ñak(e) ārw(e)r tākam ente se
 mighty:VOC therefore PCL now ready be:1PL.SBJ when DEM
kr(e)ntaunatts(e) sunetre wal(o) p(a)ñ(ā)kt(e) śaiṣṣen(e) tsāñka(m) ot
 virtuous Sunetra king Buddha world:LOC rise:3SG.SBJ then
cwi sp(aktaniki alā)_[2]lācci tākam mapi kca sū cāmpān-m(e)
 DEM:GEN servant:PL indefatigable be:1PL.SBJ PCL any DEM can:3SG.PRS/SBJ
laklene waste nestsi
 sorrow:LOC refuge be:INF
 'O mighty one! That is exactly why from now on we will be ready, won't we?
 When this virtuous king Sunetra rises as a Buddha in the world, then we will be
 his indefatigable servants. He can somehow be a refuge in our distress, can't
 he?'³⁹⁹

³⁹⁷ Verse: metre 4 x 4 | 4 | 4.

³⁹⁸ Adams (1999: 38).

³⁹⁹ Cf. Couvreur (1954b: 99). Schmidt's translation (2001: 303) is not very different, but to my mind "sollten" suggests an obligative flavour that it is too strong: "Hochmögender! Eben des-

The following example from the ordination ritual, the Karmavācanā, is as clear as can be, but there are two drawbacks. First, this text is mixed with many Sanskrit formulae and the Tocharian is demonstrably very close to the Sanskrit, also where the Sanskrit version of a particular passage is not found in the text itself. Thus, the use of the subjunctive *yāmu* may be due to calquing or to the fixed formulaic style of the whole ritual. Second, the translation given below consists of very short sentences, but in terms of content they are connected. Thus, we cannot completely exclude that *yāmu* is in fact part of a final clause: ‘please be my upādhyāya, so that I will be ordained with you as my upādhyāya’.

THT1109b5-1110a1

aiśai te pyāmtsar śaulasu ñ(i)ś (te-ñemtsa) ci śaulasontä
 attention DEM do:IPV.SG reverend I DEM-name:PERL you reverend
upādhyāyem yaskaske(mar t)w(e śaulasu ñi upādhyāye ptā)k(a)
 upādhyāya request:1SG.PRS you reverend me upādhyāya be:IPV.SG
ci śaulasotsa upādhyāyetsa ñiś wasanpāt yāmu
 you reverend:PERL upādhyāya:PERL I ordination do:1SG.SBJ
 ‘Pay attention, reverend! I (of this name) ask you [to be] my upādhyāya. [Please] be, reverend, my upādhyāya! With you, reverend, as upādhyāya I will be ordained.’⁴⁰⁰

In contrast, the following examples clearly describe events that work out in a negative way for subject and speaker. In these passages, a translation with ‘want’ or ‘wish’ is certainly not possible. However, it is rather unfortunate that all three examples are damaged to the left, so that in theory they could be apodotes to a conditional with a preceding subjunctive protasis. This possibility is real especially in the second and the third example, but in the first *ñake*, whose restoration is probable, can be taken as an indication that it is an independent sentence indeed.⁴⁰¹

halb sollten wir doch jetzt bereit sein: Wenn sich dieser tugendhafte König Sunetra als Buddha in der Welt erhebt, dann sollten wir seine unermüdlichen Diener sein. Er kann uns doch irgendwie im Leid Schutz sein.”

⁴⁰⁰ For the restorations and the translation cf Schmidt (1986: 50, 83). The Chinese parallel is very close: “Ich N.N. bitte dich Ehrwürdiger, mein *Heshang* [upādhyāya] zu werden. Du Ehrwürdiger mögest bitte mein *Heshang* sein. Mit dir als Heshang werde ich die Ordination erlangen.” (Chung 2004: 84).

⁴⁰¹ This was suggested to me by Prof G.-J. Pinault in February 2009.

IT69b3, B94a4

(*ña*)ke ñke ñās śle witsakai päst nkema(r)
 now for I with root PCL perish:1SG.SBJ
 'For now I will perish with the root.'⁴⁰²

B367a6

(*träñko*)ssoñc tākam
 guilty be:1PL.SBJ
 'We will be guilty.'⁴⁰³

IT105a2

/// (*wai*)pte lareṃ śaulā ce nkemä wetane 10
 apart dear life DEM perish:1PL.SBJ battle:LOC
 'We will each lose this dear life in battle.'⁴⁰⁴

3.5.5 SPEAKER

It is not evident that the speaker can be eliminated as a possible modal source. Examples with an event obviously to the advantage of the speaker, which could be seen as expressing a will or a wish, can be found, but for disadvantageous events I have found no examples.

The example below can hardly be seen as a prediction about the future, as it is clearly meant to coordinate a discourse situation, and apparently between unequal partners: the addressee is higher in rank. This type of acute wish, a wish that will very probably be fulfilled in a couple of seconds after it has been uttered, is not expressed by the optative: the optative denotes wishes whose realisation is more difficult and more distant.

B81a2

spantai kāsṣi weṃ
 trustfully teacher say:3SG.SBJ
 'May the teacher speak trustfully.'⁴⁰⁵

The following example is likewise from a discourse situation, but not from a natural one: it is from the ordination ritual, known to have artificial formulae. Possibly, we can compare the Skt. formula *śrṇotu bhādanta saṃghaḥ* 'Es höre, ihr Ehrwürdigen,

⁴⁰² Schmidt (2001: 326).

⁴⁰³ The restoration is based on B367b3 (*tā*)kam *träñkossoñc*.

⁴⁰⁴ Cf Hackstein (1995: 85). The by-meaning 'lose' of *nək*- posited by Hackstein seems to occur only when the object is related to the subject: it is a special reading of 'destroy'. In any case, it seems reasonable that *śaulā ce* is the life of the subject (i.e. 'we will each lose *our* life').

⁴⁰⁵ Adams (1999: 715).

die Gemeinde!” (Härtel 1956: 83, §35; 85, §36). Alternatively, the largely restored formula *samanvāharatāyusmantah* “Bedenkt, Ehrwürdige” (Härtel 1956: 109, §69) could be considered, but the context is slightly different.

THT1113a4

ce aiśai te yāmtrā (aśanīke sāñk)
 DEM attention DEM do:3SG.SBJ worthy saṃgha
 ‘May the worthy saṃgha pay attention!’⁴⁰⁶

The example below can in fact be translated as a future, but the event is clearly desirable for the speaker: the fact that his father will do that thing for him, follows from the former’s benevolence, and underlines it at the same time.

AS17Db4-6⁴⁰⁷

pācer walo saññauke | aiśamñesa kekenu (:) [5a]
 father king wise? wisdom:PERL provided
śaitsy epastye ś(ai)ṣṣempa | yāknes(a) ṣpā snai wace : [5b]
 live:INF skilful world:COM way:PERL and without second
aśanīkeṃś ne – ks. | mā cwy amarṣṣe tseñketār • [5c]
 venerable not DEM:GEN discontent rise:3SG.PRS
ñi yāmṣālye wāntare | pācer walo tu yāmām 5
 me do:PRS.GER thing father king DEM do:3SG.SBJ
 ‘Father king, wise (?) and provided with wisdom, [is] fit to live with the world in a way without equal; for the venerable ... his [i.e., the king’s] discontent does not arise. The thing I have to do will do father king.’

Strictly speaking, negated commands also belong here: it is the speaker who wants that the addressee does not carry out the event. Examples can be found in 3.5.12 (p 249).

3.5.6 HEARER

Although again examples of events that turn out positively for the hearer are much more easy to find than negative ones, the hearer certainly cannot be a parameter for modality: we find both promises with good effects for the hearer and threats with bad effects for the hearer.

The typical ‘yes sir’ expression in the example below is well attested in Tocharian A, but for Tocharian B it is only found in AS12. Because this limited distribution of the type is alarming, it may be a calque on Sanskrit *tathā* ‘so’, i.e. “yes”.⁴⁰⁸

⁴⁰⁶ For the restorations and the translation cf Schmidt (1986: 54, 89).

⁴⁰⁷ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

AS12Ba1

o(roc)cu w(a)lo mǎ(m)t tāk(am)
 great king so be:3SG.SBJ
 ‘Great king, so it will be!’

Although in the example below the speakers want to give the bowl away, receiving it is certainly to the benefit of the hearer (according to the rules of alms-giving, the speakers, the two sisters, may not take the gift back).⁴⁰⁹

B107b9

aṣāñika rerinu star-me : oñkorño eṣe nomyeṣṣe
 venerable give.up:PRT.PTC COP-PL.SUFF porridge together jewel:ADJ
bhājaṃmpa tañ ka ṣ ekalymi tākam
 bowl your EMPH and control be:3SG.SBJ
 ‘Venerable one, it is left by us. The porridge, together with the jewel bowl, will be in precisely your possession!’

In the passage below, the Buddha asks a ferryman to bring him to the other bank of the Ganges on his way to Benares where he will deliver his first sermon. In return, the Buddha promises to redeem the ferryman.

B296b3-5⁴¹⁰

*gāñkne olyitau | nes twe epastya*⁴¹¹ · [1a]
 Ganges:LOC boatman be:2SG.PRS you skilful
lyamne saṃntsārṣṣe | ti_[b4]kṣne ñiś nesau · [1b]
 lake:LOC saṃsāra:ADJ zealous I be:1SG.PRS
*gāñkne olyisa | tseñe kātkaṣṣar*⁴¹² · [1c]
 Ganges:LOC boat:PERL stream cross:IPV.SG
lya_[b5]mmem santsārṣṣe | ñiś ci salkamar · [1d]
 lake:ABL saṃsāra:ADJ I you pull.out:1SG.SBJ
 ‘You are skilful as a boatman on the Ganges; I am zealous on the saṃsāra lake. Cross the stream with [your] boat on the Ganges [and] I will pull you out of the saṃsāra lake.’⁴¹³

⁴⁰⁸ See also AS12Da5 and AS12Db4.

⁴⁰⁹ The parallel in Gnoli (1977: 110, l. 14) is not exact: *bhagavann eṣāpi parityaktā* ‘Venerable one, precisely this [bowl] is left [by us to you]’.

⁴¹⁰ Verse: metre 4 x 5 | 5.

⁴¹¹ For *epastye*; cf also *ita* b2 for *ite*.

⁴¹² We would rather expect late *katkaṣṣar* /*kātkaṣṣar*/, for classical *pkatkaṣṣar*. Although it is morphologically the causative of *kātka*- ‘cross’, ‘cross’ seems to be the only possible translation here, too.

The following example is delicate because apparently it is ironic, if the interpretation of *kraṣiyate* is correct (as it seems to be⁴¹⁴). Rather than being commanded, the benefactor would in fact like to order himself, whereas the nun should remain silent. Like in English, the Tocharian imperative is normally not accompanied by a subject pronoun, which strengthens this interpretation. Because of the supposed ironic value, *ām lamam* is grammatically probably to be interpreted as a promise to the hearer, i.e. to the benefit of the hearer; the overall negative pragmatics must be inferred.⁴¹⁵

IT248b4-5

tusa tanāpate kraṣiyate · twe pitka wes ām lamam ·
 therefore benefactor be.upset:3SG.PRT you order:IPV.SG we calm sit:1PL.SBJ
 ‘Because of that the benefactor was upset, [and said],⁴¹⁶ «You order! We will remain quiet.»’

Examples with negative consequences for the hearer are also found; the first cited here is a real threat because the speaker, the brahmin Rudramukha, who plans to avenge himself on king Araṇemi, wants the event to be carried out, whereas in the second example it is rather a kind of warning of the speaker, the vidūṣaka, to the hearer.

B81a6-b1

cwī lkāllona lāklenta nīś (utta)_[b1]ri mñcuṣkentse lkātsi
 DEM:GEN see:PRS.GER sorrow:PL I Utara:GEN prince:GEN see:INF
āyu :
 give:1SG.SBJ

‘The sorrows he should undergo I will let undergo Utara the prince [instead].’⁴¹⁷

B78b4-5

brāhmaṇiśka mākcepi nīke kektseñe krarma_[b5](rtsa)⁴¹⁸
 little.brahmin:VOC self:GEN for body heavy
klautkañ-cä
 turn:3SG.SBJ-2SG.SUFF
 ‘Little brahmin, after all your body will become heavy for yourself!’⁴¹⁹

⁴¹³ Schmidt (1974: 487).

⁴¹⁴ Cf the rendering of the Chinese version of this pratideśaniya 2 by Rosen (1959: 216), “Die Haushalter schelten die Nonnen”.

⁴¹⁵ An isolated *ām lamam* could probably also be taken as an exhortation, ‘please be silent’ (see 3.5.9, p 245), but the preceding *twe pitka* rules out this possibility.

⁴¹⁶ In IT137b3 we find the addition *ot weñā-neś* ‘and then said to her’.

⁴¹⁷ Cf Couvreur (1954b: 100) and Schmidt (2001: 310).

⁴¹⁸ For *kramartsa*.

3.5.7 NEUTRAL PREDICTIVE

Although pure futures are rare cross-linguistically and there often is at least a slight modal value, there are quite a number of examples of predictions in Tocharian B, always expressed with (a series of) subjunctive clauses.

In the first example, the god Pürvottara makes a prophecy about the cakravartin king Supriya; the clauses are evidently parallel.

AS17Ab4⁴²⁰

tā twe rīne ṣmemane | pikwalasa wī tmane : [2a]
 DEM you town:LOC sit:PRS.PTC years two ten.thousand
śak-(y)āmorṣṣai ytārine | stamāst wnołmem ce preke : [2b]
 ten.deeds:ADJ path:LOC put:2SG.PRS/SBJ beings DEM time
ñ(ā)kcyē(ṃ) śāmñem śaiṣṣeṃtso | rewāt yenme emparkre (: [2c]
 divine human worlds:GEN.PL open:2SG.SBJ door wide
nrai lwāsa śle prete(nne | nekä)t lakle eṃṣketstse : 2
 hell animal:PL with preta:LOC.PL destroy:2SG.SBJ sorrow completely
 ‘Staying twenty thousand years in this town, you will at that time put the beings
 on the path of the ten deeds; you will open wide the door to the worlds of gods
 and humans; you will completely destroy sorrow among the hell-[beings], the
 animals and the pretas.’⁴²¹

The following example, even if it is fragmentary, is certainly from the prophecy of Asita the wise who foretells Buddha’s future just after his birth (on this scene, cf e.g. Foucaux 1884: 91-102).

AS12Ca5⁴²²

kārsau te mānt empreṃtsā | källam klāwi śaiṣṣene 1
 know:PRT.PTC thus truth:PERL obtain:3SG.SBJ fame world:LOC
 ‘Thus having understood it for truth he will obtain fame in the world.’⁴²³

The classic examples of predictions or prophecies in Buddhist literature are the advent of the future Buddha Maitreya and descriptions of the ideal future city Ketumatī. Below, a small extract of a poem about Maitreya is given, with the characteristic series of subjunctive clauses.

⁴¹⁹ Cf Schmidt (2001: 308): “Brahmanlein! Dein Körper wird dir selbst doch schwer werden.”

⁴²⁰ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁴²¹ For text, translation and commentary, see Pinault (1984c).

⁴²² Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁴²³ For the translation, cf Couvreur (1953b: 280).

THT1859b3⁴²⁴

(*prati*)////harinta | *kaśyape aiṃ śamnants (D)katsi* |
 miracle:PL Kāśyapa give:3SG.SBJ people:GEN.PL see:INF
klutkaṣṣāmn-me akteke [63a]
 make:3SG.PRS/SBJ-3PL.SUFF amazed

‘Kāśyapa will give the people ... miracles to see, and make them amazed.’

The last example is different in that the Buddha prophesies his own future, but nevertheless the interpretation is quite certain: he knows his destiny and future well (a comparable example is AS12Hb3-4, see 3.7.4, p 283).

B107b10

se ñi posa postanu prāthagjaññene pinwāt warpalñe
 DEM me all:PERL last state.of.unenlightened alms receiving
tākaṃ
 be:3SG.SBJ

‘This will be my last receiving of alms of all in the state of the unenlightened.’

3.5.8 QUESTIONS

The reasons for the interchange of present, subjunctive and optative in rhetorical questions are difficult to understand in full detail. With our knowledge about the use of these categories elsewhere, we can tentatively suggest that the subjunctive is used for questions asked to oneself in aporia that are not rhetorical in the strict sense, but refer to future situations with an uncertain development and outcome.

AS12La3

k_uce saim yāmmār •
 what protection do:1SG.SBJ

‘What protection should I offer?’ or ‘What should I protect?’

B93a4 (= NS36+20a2)

mākte ñake tākaṃ mā ñi pele ste waike weṃtsi
 how now be:3SG.SBJ not I:GEN way be:3SG.PRS lie say:INF
 ‘How shall it be now? It is not my way to tell lies!’⁴²⁵

⁴²⁴ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

⁴²⁵ Cf Couvreur (1964: 246; see also Schmidt 2001: 325).

AS12Eb3

kce śāp yāmu se ñāke yumāne tākau nau ///
 what and do:1SG.SBJ DEM now ripen:PRS.PTC be:1SG.SBJ
 ‘And what shall I do? It is maturing now. I will ...’

B81a4⁴²⁶

su ke ñem walo | yāmṣate ñīśś erkatte | mākṭe ṣ tem
 DEM name king do:3SG.SBJ I badly how and DEM
kelu : [1d]
 bear:1SG.SBJ

‘This king by that name⁴²⁷ has treated me badly: how will I bear that?’⁴²⁸

The present, on the other hand, seems to be used for situations that call for immediate action. In the example below, it is striking that the main verb is again ‘give’, which is also more often in the present in main clauses with future reference and apodotes to specific conditionals (the restoration *ai(sk)au* is certain; the subjunctive would be *āyu*, the optative *āyim*).

B85a6 = NS355a4

mākṭe ai(sk)au (uttareṃ ñā)kte-yokāṃ sās(uw)e(rśk)e(ṃ)
 how give:1SG.PRS Uttara of.divine.appearance dear.son
amāskai rilye ·
 difficult give.up:SBJ.GER

‘How can I give [away] Uttara, my dear son of divine appearance that is difficult to let go?’⁴²⁹

The optative, in turn, is used for “real” rhetorical questions that expect no answer (quite like the others above), but are only used for a stylistic effect (unlike the other examples above): not only does the speaker not expect an answer, he also assumes that the hearer knows exactly that.

B224a1⁴³⁰

ket no cāmpāmñe | seṃ takoy alyekepi [3c]
 who:GEN but ability DEM be:3SG.OPT other:GEN.SG
 ‘Who else then could have that ability?’

⁴²⁶ Verse: metre 4 x 5 | 7 | 5 (5 | 4+3 | 5) or 6 | 6 | 5.

⁴²⁷ The word *ke* is analysed as an intensifier by Adams (1999: 188), whereas Schmidt (see footnote 428) follows Sieg and Siegling’s correction into *te* (1953: 19).

⁴²⁸ Cf. Couvreur (1954b: 100, see also Schmidt 2001: 310 “Der so benannte König hat mich verächtlich behandelt: wie aber soll ich das ertragen?”).

⁴²⁹ Cf. Couvreur (1964: 240; see also Schmidt 2001: 314).

⁴³⁰ Verse: metre 4 x 5 | 7 (5 | 4+3).

3.5.9 1PL ADDRESS

It seems that in a very small number of cases a 1pl. subjunctive is used for direct address. If correctly identified, this marginal use could be compared with the “doctors’ *we*” found in English as well as in other European languages, e.g. *How are we today?* in the meaning ‘How are *you* today?’. In the example directly below, I suspect that *yenme ruwäm* ‘we will open the gate’ is an order because the reply *mäm̐t tākaṃ* ‘so it will be’ presupposes one. King Vaiśravaṇa, who speaks in the preceding line, may be the speaker of this order, too; it would be addressed to the yakṣas Pramardana and Gardabhaga. For other possible examples of 1pl. address, see B331a4 *kwri mā cimpem* ‘if we cannot’ and B331b3-4 *ārwe(r ya)maṣṣamtte mā wat* ‘have we made ourselves ready, or not?’. An alternative interpretation of the example below could be that *yenme ruwäm* is a suggestion of one of the persons who partakes in the opening of the gate.

AS12Ga2

/// y(e)nme ruwäm • pramardane weṣṣäm mǎ(ṃ)t tākaṃ •
 gate open:1PL.SBJ Pramardana say:3SG.PRS so be:3SG.SBJ
 ‘... we will open the gate.» Pramardana says: «So it will be!»⁴³¹

3.5.10 COMPARED TO THE PRESENT

The present can be contrasted in two ways with the subjunctive, as 1) the present may refer to close or certain futures, and 2) the present may sometimes have modal values. In contrast, the subjunctive is never used to refer to the present in main clauses. For Tocharian B in particular, the comparison between the present and the subjunctive is complicated because of the relatively high number of examples with present-subjunctives: some of them are pre-eminent high frequency verbs, such as ‘go’ (which is one of the verbs that is often in the present in future contexts in Tocharian A, see 3.2.8, p 180).

There is one verb, ‘become’, that has no subjunctive, but its present is sometimes used as such, which without doubt follows from the future sense that is already part of its meaning. Probably, the use of the present instead of the subjunctive depicts the future event as more certain.

B496a1-2⁴³²

(mā) ñ(i ci)sa noṣ | śomo ñ(e)m [a2] (wno)lme | (Ḍ)āre
 not me you:PERL before human name being dear

⁴³¹ Cf Couvreur (1953b: 282).

⁴³² Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

tāka mā ra postam | cisa lāre mäsketär-ñ : [2c]
 be:3SG.PRT not and afterwards you:PERL dear be:3SG.PRS-1SG.SUFF
 ‘No human being⁴³³ has [ever] before been dearer to me than you, and none will be dearer to me than you afterwards.’

Another verb that is frequently in the present is ‘give’. I suppose that this use is due to discourse situations in which the event of giving is so near at hand that a present cannot cause any ambiguity. There are also some present apodoses in conditionals where the same principle seems to be at work. For the example below, contrast the construction following in B81a6-b1 (3.5.6, p 239).

B81a6

sū no walo pañāktāññe (perne)ṣṣe akālksa po (aiṣṣeñca
 DEM but king Buddha:ADJ worth:ADJ wish:PERL all give:AG.N
nemce)k cau uttareṃ mñ(cu)ṣkeṃ yesāmññ aiṣṣāṃ
 certainly DEM Uttara prince you:GEN.PL give:3SG.PRS
 ‘Now this king is giving away all out of his wish for the Buddha rank and certainly he will give Uttara the prince to you.’⁴³⁴

The most important modal use of the present is in negated commands. In Tocharian, the imperative cannot be negated. Instead, the present or the subjunctive is used; the former is used to make the hearer stop carrying out an event (inhibitive), the latter to prevent the hearer from carrying out a future event (preventive). Thomas (1958a) gives examples of both inhibitives (p 301-303) and preventives (p 306-307; unfortunately he cites mainly present-subjunctives here). See the inhibitive example below:

B85a2 (also NS355a1)

ṣarya ammakki poññ āppai mā ñiś cempaṃts rakṣatsents
 dear mum tell:IPV.SG dad not I DEM:GEN.PL rākṣasa:GEN.PL
aiṣṣāṃ
 give:3SG.PRS
 ‘Dear mummy, tell dad that he mustn’t give me to those rākṣasas!’⁴³⁵

⁴³³ Literally: ‘being called “man”’ or ‘being with the name “man”’.

⁴³⁴ Cf Couvreur (1954b: 100).

⁴³⁵ Cf Couvreur (1964: 240); Schmidt (2001: 314).

B123b1⁴³⁶

pkel twe erkätñe | mā rinasta(r) ///
 bear:IPV.SG you displeasure not give.up:2SG.PRS
 ‘Endure the displeasure, do not give up!’

B88b4

mā traniko yamas-ne
 not guilt do:2SG.PRS-3SG.SUFF
 ‘Do not blame him!’⁴³⁷

Although in the example below future reference seems to be ascertained by *tu postām* ‘after that’, *kāskan-me* ‘disperses them’ is probably a present. This present could be caused by *nemcek* ‘certainly’, which indicates that it is certain;⁴³⁸ alternatively, one could take it as a general description without explicit reference to a specific future event, which would also allow for the use of the present.

B555.2

/// (ne)mc(e)k tu postām cem srukalyñe kāskan-me :
 certainly DEM after DEM death scatter:3SG.PRS-PL.SUFF
 ‘Certainly death will disperse them after that.’

3.5.11 COMPARED TO THE OPTATIVE

The widest use of the optative in both main and subclauses is found in the Udānavarga bilinguals; however, since they are copied from optatives in the Sanskrit original, this wide use does not reflect genuine Tocharian grammar, but rather the modal system of Buddhist Sanskrit.

The principal uses in independent main clauses in Tocharian B are optative, obligative, and dubitative. The usage in dependent main clauses in conditionals is briefly described in 3.6.11 (p 266).

In optative use, the speaker wishes that the subject carries out an event, either to the benefit of the speaker or to the benefit of the subject; the fulfilment of the wish may, but need not be in the hands of the subject. In this usage, the optative is clearly

⁴³⁶ The beginning of pāda 39b of a versified text with the metre a-c: 5 | 7 (5 | 4+3), d: 7 | 8 or 8 | 7.

⁴³⁷ Cf Couvreur (1954b: 102; see also Schmidt 2001: 318); alternatively, one could consider a translation ‘don’t consider it his sin!’.

⁴³⁸ A complicating factor is that the manuscript is archaic, so that the *a*-vowels are not completely reliable. Consequently, *kāskan-me* could theoretically stand for a pl.sbj. *kaskan-me* {kāska-n-me}. However, since this yields the strange interpretation ‘they will disperse their death[s] after that’, *kāskan-me* must be a regular sg.prs. {kaskāññā-n-me}.

distinct from the subjunctive, since the subjunctive does not express wishes (for wish-like subjunctives, confined to specific discourse situations, see 3.5.5, p 238).

B107b7-8⁴³⁹

ce pintwāttsa | kārtsomñenta | po yātoye-ś : [1c]
 DEM alms:PERL virtue:PL all realise:3PL.OPT-2SG.SUFF
wesi [b8] rano | ritau akālk | kāñiyoytār • 1
 we:GEN also bind:PRT.PTC wish fulfil:3SG.OPT
 ‘May through these alms all benefits become possible [be realised] for you, and may our cherished wish be fulfilled!’

In obligative use, the speaker claims that the subject should carry out an event according to general rules or principles. The event need not be beneficial to the subject nor to the speaker; the success of the event is generally in the hands of the subject. Although this use is not rare in the corpus, most examples look like they result from calquing on Sanskrit originals (for instance B30b4 *wināṣi* ‘one should honour’, which translates Skt. *namasyeta* ‘id’ Uv12.16d). Even of the example below one could claim that is not probative because on the one hand the Karmavibhaṅga has evident traits of a translation from Sanskrit, and on the other, a nominal subclause precedes, so that the optative clause is not independent.

AS7Jb6⁴⁴⁰

ñākcyē nervāṃṣe | śpā sak warpatsy āñme ket | sū
 divine nirvāṇa:ADJ and happiness receive:INF wish who:GEN DEM
św(ā)tsi āyi 5
 food give:3SG.OPT
 ‘Who has the wish to receive happiness of gods and the nirvāṇa, he should donate food.’

In dubitative use, the optative expresses a high degree of uncertainty on the part of the speaker about the realisation of a future event, or about the truth of a present situation. Especially in questions, including rhetorical ones, dubitative optatives may be difficult to keep apart from presents and subjunctives, as these occur in comparable types of questions (see 3.5.8, p 243).

B99a4

ñakteṃts saswa k,se pi ksa ayi-ne pelaikne
 god:GEN.PL lord:VOC who PCL INDF give:3SG.OPT-3SG.SUFF law

⁴³⁹ Verse: metre 4 x 4 | 4 | 4.

⁴⁴⁰ Verse: metre 4 x 5 | 7 | 5 (5 | 4+3 | 5) or 6 | 6 | 5.

klyauṣṭsi

hear:INF

‘O lord of the gods, will anybody give him to hear the law?’⁴⁴¹

3.5.12 COMPARED TO THE IMPERATIVE

The imperative is the pre-eminent deontic mood, and since the subjunctive is not deontic, the overlap between the two is negligible. There are two ways in which the subjunctive and the imperative touch: in the prohibitive and with certain particles (see especially 3.7.3, p 282).

As explained above, the imperative cannot be negated and its negative (prohibitive) counterparts are the present for ongoing actions (inhibitive) and the subjunctive for future actions (preventive). Thus, as a negation of the imperative, the subjunctive has a clear modal value.

B128b5⁴⁴²

‡	<i>waṣāmñeṣṣe</i>	<i>pälskosa</i>	<i>cī</i>		<i>weskau</i>	<i>mapi</i>	<i>mārsat</i>
	friendly	mind:PERL	you		say:1SG.PRS	not ⁴⁴³	forget:2SG.SBJ

te • [10b]

DEM

‘I say to you with a friendly mind: do not forget this.’

B77.4

<i>ṣpakk</i>	<i>anaiṣai</i>	<i>epiyac</i>	<i>kalatsi</i>	<i>porcaññar</i>	<i>cwi</i>	<i>araṇemiñ</i>
more	careful	memory	bring:INF	deign:IPV.SG	DEM:GEN	Araṇemi:GEN

lānte *krent* *yamalñe* •

king:GEN good activity

‘Please remember the good activity of king Araṇemi more carefully!’⁴⁴⁴

B588b6

mā *twe* *prāskat*

not you be.afraid:2SG.PRS/SBJ

‘Don’t you be afraid!’

⁴⁴¹ Thomas (1954: 730).⁴⁴² Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).⁴⁴³ On the particle *mapi*, see in detail 3.7.5 (p 300).⁴⁴⁴ Cf Couvreur (1954b: 99; see also Schmidt 2001: 303).

THT1103b2

mäkte kca twe ce te-yäknece ike mā kātkat
 how INDF you DEM such place not cross:2SG.SBJ
 'You mustn't cross this point on any account!'⁴⁴⁵

In the Udānavarga bilinguals, and in the corresponding passage of the Udānālaṅkāra, too, there is one instance of a Skt. 3sg.ipv., which is rendered by an optative in Tocharian B. (Both in the Udānavarga and the Udānālaṅkāra, the 3sg. *astu* is rendered with the 2sg.opt. *tākoyt* because of the different construction of *dhik* and *hišt*. In the Udānālaṅkāra, *mā klyomo* was added for metrical reasons.)

IT233+368a3 (= Uv1.29a)

[SKT:] *dhik tvām (a)stu jare grāmye* • [TB:]
 shame you be:3SG.IPV old.age:LOC vulgar:LOC
*hištwe*⁴⁴⁶ *tākoytā ktsai(tsāññe) ///*
 shame/you be:2SG.OPT old.age
 'Shame be upon you, vulgar old age!'⁴⁴⁷

B5b8⁴⁴⁸

hišt t(w)e tākoyt (kts)aitsāññe ! kārpye-yakne mā
 shame you be:2SG.OPT old.age of.a.mean.kind not
klyomo : [75a]
 noble
 'Shame be upon you, old age! You are of a mean kind [and] not noble'

3.6 THE TOCHARIAN B SUBJUNCTIVE IN SUBCLAUSES

In subclauses, the Tocharian B subjunctive expresses uncertainty, which includes conditionality. First, conditionals are discussed, with subjunctive (3.6.1, p 251), pres-

⁴⁴⁵ Cf Schmidt (1986: 69-72): "Auf keinen Fall sollst du dir ein solches Vergehen zuschulden kommen lassen." This is taken from the formula to precept №5 in the karmavācanā; damaged or lost versions are for №1 in THT1102b2, №2 in THT1102b4-1103a1, №3 in THT1103a2-3, №4 in THT1103a4-b1, №6 in THT1103b4, №7 in THT1104a2, №8 in THT1104a4, №9 in THT1104b1, №10 in THT1104b3 (in the latter four we find *mäkte kca māntrakā-yäknece* instead of *mäkte kca twe ce te-yäknece*). The formula has a precise match in Skt. *kaccid evaṃrūpaṃ sthānaṃ nādhyāpatsyase* "Auf keinen Fall sollst du ein solches Vergehen auf dich laden." (Härtel 1956: 54-55, §6.7-§6.12). The Chinese parallel of Chung (2004: 46-47, §v.3b-§v.3f; 48-49, §v.6.2) is less precise.

⁴⁴⁶ For *hišt twe*.

⁴⁴⁷ 1.29b-d *virūpakaraṇī hy asi* [b] *tathā manoramaṃ bimbaṃ* [c] *jarayā hy abhimarditam* [d]
 'you are a maker of ugliness because a face gratifying to the mind is destroyed by old age.'
 (Bernhard 1965: 106; Chakravarti 1930: 9).

⁴⁴⁸ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

ent (3.6.2, p 253), and imperative apodoses (3.6.3, p 259) respectively; deviating types are discussed in 3.6.4 (p 260). Several other subcategories follow: eventual clauses (3.6.5, p 261), iterative (3.6.6, p 261), indefinite (3.6.7, p 262), concessive (3.6.8, p 263), and final clauses (3.6.9, p 264). Then, the subclause subjunctive is compared with present (3.6.10, p 265), nominal (3.6.11, p 266), and optative clauses (3.6.12, p 268). Because of the wide variety of conditional types in *prātimokṣa* texts, these are treated separately in 3.6.13 (p 272).

3.6.1 CONDITIONALS WITH SUBJUNCTIVE APODOSIS

Subjunctive conditionals with a subjunctive apodosis denote two future events that may possibly take place. The relation between these two events is not fixed: I have found some typical examples where the apodosis is the logical consequence of the protasis, but the protasis may also be a condition for another event that does not logically follow from the fulfilment of the condition.

The first example is a clear conditional, since it has the conjunction *kr_{ui}*; however, the relation between protasis and apodosis is only logical if the speaker is not promising instead of prophesying. In fact, since the Buddha is the speaker, we have to take into account the possibility that the speaker promises the apodosis. If not, the Buddha may just give guidelines, so to say, and the apodosis is indeed to be seen as a logical consequence of the protasis.

B128b4⁴⁴⁹

<i>kr_{ui}</i>	<i>twe</i>	<i>wroccu</i>	<i>wlo</i> †	<i>yāmt</i>	<i>ñi</i>	<i>rekisa</i> †	<i>käll(ā)t</i>
if	you	great	king	do:2SG.SBJ	I:GEN	word:PERL	obtain:2SG.SBJ
<i>yñ(ak)t(eṃ)</i>	<i>śale</i>	<i>yśāmna</i> †	<i>kāre-perne</i>	<i>lantuññe</i>	[10a]		
among.gods	with	among.men	glory	royal			

‘If you, o great king, act according to my word, you will attain great glory and kingship among both gods and men.’

The example below certainly contains a logical relation between three events, but since the conditional conjunction is omitted or lost, it is theoretically possible that it is a series of independent main clauses. Nevertheless, taking the whole utterance as one sentence gives a coherent interpretation.

B375a5

<i>/// (śre)ṣṭhinmeṃ</i>	<i>peri</i>	<i>yāmmar</i>	<i>śwer</i>	<i>orocceṃ</i>	<i>mahāśrā(maṇeṃs)</i>
distinguished:ABL	debt	do:1SG.SBJ	four	great	mahāśramaṇa:ALL.PL
<i>kalymisa</i>	<i>spārttau</i>	<i>ce</i>	<i>tallārñemeṃ</i>	<i>mlutkāmar</i>	
direction:PERL	turn:1SG.SBJ	DEM	misery:ABL	get.out:1SG.SBJ	

⁴⁴⁹ Verse: metre 4 x 5 † 5 † 8 † 7 (5 † 5 † 4+4 † 4+3).

‘If I borrow money⁴⁵⁰ from the distinguished [Priyadeva, my neighbour] and behave correctly towards the four great *mahāśramaṇas*, I will get out of this misery.’

The following set of clauses is definitely logically related, but since it is fragmentary, we cannot be totally certain about its interpretation.

AS12Eb2

/// *k āklyi mā yāmtār nānokā ñke mā kca kārśā(t)*
 exercise not do:2SG.SBJ still then not INDF know:2SG.SBJ
 ‘... if you don’t learn [it], then you still don’t know anything ...’

Since the following passage is taken from the ordination ritual, the relation between the protases and apodoses is not entirely logical: it is based on the rules of this ritual.

THT1113a2-3

krui ysomo s(āñ)k (warpatrā ām lmorsa) ka wasanpāt
 if whole saṃgha receive:3SG.SBJ silent sit:ABS just ordination
yātaṃñ-c • *še śamāne postaññe tenkāñ-c*
 realise:3SG.SBJ-2SG.SUFF one monk even stop:3SG.SBJ-2SG.SUFF
wasanpāt mā yāt(aṃñ-c •)
 ordination not be.able:3SG.SBJ-2SG.SUFF
 ‘If the whole saṃgha agrees, [even if] only through remaining silent, you will be ordained. If only one monk stops you, you cannot be ordained.’⁴⁵¹

If the last example still contained a sense of logic, the following is clearly a condition set by the speaker (with a slightly deviant Paris parallel, AS18Ab3, see Pinault 1984b):

B337b1

kampāl mā pāst kalatar temeñce pāstä
 mantle not away bring:2SG.SBJ because.of.that away
lyutem-cä •
 drive:1PL.SBJ-2SG.SUFF
 ‘If you don’t give away the mantle, then we will drive you away because of that.’

⁴⁵⁰ I have tentatively translated *peri yam-* with ‘borrow money’, although literally it means ‘make debt’; alternatively, it would be ‘make debts with sb.’ or the like.

⁴⁵¹ For the restorations and the translation cf Schmidt (1986: 54, 88); his restoration of the moods is without doubt correct. Parallel formulae are cited by Härtel (1956: 86, §37.5) and Chung (2004: 88, §13.2).

AS18Ab3

kampāl mā päst kalatar matsisa kauc lañkām-c
 mantle not away bring:2SG.SBJ hair:PERL up hang:1PL.SBJ-2SG.SUFF
 'If you don't give away the mantle, we will hang you up by your hair.'

Likewise, in the example below Indra, who puts the pious king Subhāṣitagaveṣin to the test, who says he is prepared to die for one Buddha strophe.⁴⁵²

B100a4

/// mrauskäṣṣeñcai empelyai pwārṣṣai koṣkain(e) yaptsi
 making.feel.weary horrible fire:ADJ hut:LOC enter:INF
campalle⁴⁵³) tākat ta⁴⁵⁴ ñiś tañ⁴⁵⁵ pañaktāññe ślauk⁴⁵⁶
 can:PRS/SBJ.GER be:2SG.SBJ then I you:GEN Buddha:ADJ strophe
aksau⁴⁵⁷
 tell:1SG.SBJ
 'If you are able to enter this horrible fire hut that makes feel weary, then I will
 recite your Buddha strophe.'⁴⁵⁸

3.6.2 CONDITIONALS WITH PRESENT APODOSIS

Subjunctive conditionals with a present apodosis typically do not denote concrete possible future events, but rather general principles. If a concrete event is expressed, the apodosis does not contain the logical consequence of the protatic event.

Many good examples of general principles expressed by this type of conditional can be found in the Karmavibhaṅga, which deals with the consequence of deeds in another rebirth. In this type, it is more about several different scenarios of general causal or temporal relations than about a particular future event conditioned by another.

⁴⁵² Two more comparable examples of the same text are B99a5 and B100a1-2 (3.7.3, p 282).

⁴⁵³ Inf. + *campalle* is restored after B100a1.

⁴⁵⁴ Sieg and Siegling (1953: 36) correct to *tane* 'here', but see 3.7.5 (p 287).

⁴⁵⁵ *tañ* lacks in Sieg and Siegling's edition (1953: 36), but can be read very clearly in the manuscript.

⁴⁵⁶ For *ślok*.

⁴⁵⁷ The following *akṣara ka* may the beginning of a new clause, or otherwise it may be the emphatic particle *ka* 'just'.

⁴⁵⁸ Thomas (1952: 42). 'your strophe' is to be understood roughly as 'the strophe that you requested to hear' or 'the strophe that you talked about'.

AS7Eb2⁴⁵⁹

cai *kr_ui* *nta* *yśāmnā* | *cmentrā* *onolmi* | *snaice*
 DEM:PL if ever among.humans be.born:3PL.SBJ being:PL poor
ostne *tānmaskentrā* | *ekñiññesa* *meṅkice* : [8b]
 house:LOC be.born:3PL.PRS possession:PERL lacking

‘If these beings are ever reborn among humans, they are born in a poor house that lacks possessions.’

AS7Jb2⁴⁶⁰

tākaṃ *yokaitse* | *kr_ui* *pākri* *māsketār-ne* | *yoktsi* *enepre* 2
 be:3SG.SBJ thirsty if manifest be:3SG.PRS drink before
 ‘If he is thirsty, drink appears in front of him.’

In the following example, the conditional is a complement to *māksu no yāmor* ‘what is the deed’, but otherwise it is regular: *cmetrā* (for *cmentrā*) introduces the condition and *śāyem* (prs.-sbj.), *tsālpentre* (for *tsālpentrā*) and *klinaṣṣān-me* give the consequence.

AS7Ca1-2⁴⁶¹

māksu *n(o)* *yāmor* | *mākcewsa* *tne* *onolmi* : [10a]
 which but action which:PERL here being:PL
nrai_yne *cmetrā*⁴⁶² | *ywārtsa* *omte* *ś(au)l* *ś(ā)y(e)ṃ* : [10b]
 hell:LOC be.born:3PL.SBJ half there life live:3PL.PRS/SBJ
*tsālpentre*⁴⁶³ *nauṣāk* | *lāklentameṃ* *nre*_[a2] *yṣana* : [10c]
 be.freed:3PL.PRS before sorrow:ABL.PL hell:ADJ
mā *solme* *lākle* | *klinaṣṣān-me* *warpatsi* 10
 not complete sorrow have.to:3SG.PRS.-PL.SUFF receive:INF
 ‘But what is the deed through which the beings here, if they are reborn in hell, then live only half of their lives there, are freed earlier from the sorrows of hell, and do not have to endure all the sorrow.’

There is one such example from the Udānālāṅkāra, where the Sanskrit Udānavarga original has no modal marking, but apparently it was deemed necessary in the Tocharian, in spite of the artificial character of that text (for “modal calques” on Sanskrit, see 3.1.3, p 158, and e.g. 3.6.9, p 264). The two Sanskrit presents *bhavati* ‘is’

⁴⁵⁹ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

⁴⁶⁰ Verse: metre 4 x 5 | 7 | 5 (5 | 3+4 | 5).

⁴⁶¹ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁴⁶² Certainly for *cmentrā*. The preceding unit is one syllable short; perhaps one should read *nrai_yntane* instead.

⁴⁶³ Certainly for *tsālpentrā*.

are rendered by Tocharian subjunctives *tākaṃ* (conditional in the first instance, concessive in the second correspondence).

B31a7⁴⁶⁴

kwri tane | śwātsintse śle yoktsintse | klpauca tākaṃ
if here food:GEN with drink:GEN obtain:AG.N be:3SG.SBJ

wnolme : [40a]

being

yolo-wāntre ra kwri tākaṃ | sū cets mskētār
of.bad.nature also if be:3SG.SBJ DEM DEM:GEN.PL be:3SG.PRS

*yarkesa*⁴⁶⁵ | [40b]

reverence:PERL

‘If a being is obtaining food and drink here, even if he is of bad nature, it is [worthy of] reverence for them’

Uv13.14

sa cet tv ihānnapānasya [a] lābhī bhavati
DEM if PCL here÷food.and.drink:GEN obtain:AG.N be:3SG.PRS

pudgalah [b]

person

pāpadharmāpi ced bhavati [c] sa teṣāṃ bhavati
of.evil.character÷even if be:3SG.PRS DEM DEM:GEN.PL be:3SG.PRS

pūjitaḥ [d]

honoured

‘If someone is obtaining food and drink here, even if he is of evil character, he is honoured by them.’⁴⁶⁶

The conditional type with a present apodosis is very often used in all kinds of metaphors where two principles are compared, so that both can have the same structure:

B407a1-3⁴⁶⁷

tättātār tana | (tan)āmotāṣṣai koyne | t(ane⁴⁶⁸ onolme) [23a]
put:3SG.SBJ seed tanamoda:ADJ mouth:LOC here being

ma te tsatsa_[a2]ltarmeṃ | naukāṃn-ne so(lme) su | śūke
not DEM chew:ABS swallow:3SG.SBJ-3SG.SUFF completely DEM taste

⁴⁶⁴ Verse: metre a-b: 8 | 7 | 6, c: 18, d: 7 | 6 (a-b: 5+3 | 4+3 | 6, c: 4+5 | 4+5, d: 4+3 | 6); line 40a is cited from the 6th syllable and line 40b contains 6 more syllables.

⁴⁶⁵ So to be read for *yarkasa* in the manuscript.

⁴⁶⁶ Bernhard (1965: 205); cf Chakravarti (1930: 106).

⁴⁶⁷ Verse: metre 4 x 5 | 7 | 5 (5 | 3+4 | 5) or 6 | 6 | 5.

⁴⁶⁸ The manuscript reads *n* instead of *t* (Sieg and Siegling 1953: 272; restorations after them).

mā *ȳstār-ne* [23b]
 not know:3SG.PRS/SBJ-3SG.SUFF
mā(nt)r(ā)kk(a) *āklu* | *pelaiykne* [a3] *ompalskoññe* | *kr_{ui}* *no* *mā*
 just.so learn:PRT.PTC law meditation if but not
lama(m) [23c]
 sit:3SG.SBJ
aklilyñe *su* *cpi* | *māsketrā* *tanāmot* *ramt* | *solme*
 teaching DEM DEM:GEN be:3SG.PRS tanamoda like completely
nukowa 23
 swallow:PRT.PTC

‘If a being here puts a *tanamoda*-seed into its mouth and swallows it as a whole without having chewed, then it does not notice the taste. And likewise, if someone who has learned the law does not sit down in meditation, the teaching is for him like a *tanamoda*-seed swallowed as a whole.’

There are also some examples which clearly cannot be explained as conditionals based on general principles. In most of these cases, there is no logical relation between protasis and apodosis, and probably we have to take the present in the apodosis as the present that may be used for close and certain futures in main clauses. In all clear instances, the main clause contains a present form of the verb *ay-*‘give’ (cf apart from the example below also B107b1-2: 3.7.3, p 282).

Cp32.8-9

*ce*⁴⁶⁹ *sem* *kamāte* *pās* [9] *aiyñ* *ce*⁴⁶⁹ *peri*
 what DEM bring:3SG.PRT away give:3SG.SBJ/1SG.SUFF what debt
nesem *tu* *pās* *aiskem-ne*
 be:1PL.PRS DEM away give:1PL.PRS-3SG.SUFF
 ‘If he gives back to me⁴⁷⁰ what he has carried off, we [will] give back to him what we owe.’⁴⁷¹

The following example contains a present form in the apodosis, but it is a specific condition with a logical relation indeed. Here, the explanation may be that the

⁴⁶⁹ Relative.

⁴⁷⁰ Since the *ñ* of *aiyñ* is a first person singular whereas *aiskem* is a first person plural, it could be that we have to read *aīm* without suffixed pronoun, but with *saṃdhi* before the following *c*, i.e. ‘if he gives back what he has carried off’.

⁴⁷¹ For text, translation and commentary, cf Pinault (1984a). He had translated the four clauses as two sentences, i.e. with *aiyñ* as part of a main clause: “Ce qu’il a pris, il doit me [le] rendre; ce dont nous sommes redevables, nous le lui rendons.” (1984a: 31-32). However, an interpretation as a conditional yields a coherent, and probably better, translation.

apodosis contains a subjunctive gerund *knelle*, which might provide for the future reference.

B100a5-6

<i>käṣṣi</i>	<i>snai</i>	<i>nerke</i>	<i>yänmaskau</i> ⁴⁷²	<i>pwārṣai</i>	<i>koṣkaine</i>	— — — —
teacher	without	hesitation	enter:1SG.PRS	fire:ADJ	hut:LOC	
(<i>puwa</i>) <i>rne</i>	<i>nauṣ</i>	<i>yopu</i>	<i>mā</i>	<i>ṣpä</i>	<i>akālk</i>	<i>knelle</i>
fire:LOC	before	enter:1SG.SBJ	not	and	wish	fulfil:SBJ.GER
<i>star-ñ</i>		<i>pañaktä</i> _[a6] (<i>ññe</i>	<i>śloksa</i>)	<i>lareṃ</i>	<i>pelaikne</i>	
be:3SG.PRS-1SG.SUFF		Buddha:ADJ	strophe:PERL	dear	law	
<i>klyautsi</i> ⁴⁷³	<i>pelaikne</i>	<i>klyauṣṭsi</i>	<i>nauṣ</i>	<i>pete-ñ</i>		<i>tak(arṣkeṃ</i>
hear:INF	law	hear:INF	before	give:IPV.SG-1SG.SUFF		faithful
<i>palskosa</i>)						
mind:PERL						

‘Teacher, without hesitation I enter into the fire hut ... (but) if I enter into the fire first, my wish to hear the dear law with a Buddha-strophe cannot be fulfilled. First give me the law to hear with faithful mind!’⁴⁷⁴

One example from a philosophical text from the abhidharma could be a conditional on the basis of inference, but it cannot be excluded that it just discusses different states of mind; in the latter case, it is not different from the examples based on general principles given above.⁴⁷⁵

B197a3-4

<i>inte</i>	<i>toyne</i> ⁴⁷⁶	<i>warpalñenta</i>	<i>mā</i>	<i>tākam</i>	<i>palskone</i>	<i>ne</i> _[a4] <i>mcek</i>
if	DEM:PL	experience:PL	not	be:3PL.SBJ	mind:LOC	certainly
<i>upekṣ</i>		<i>māsketār</i>				
indifference		be:3SG.PRS				

‘If these experiences are not there in the mind, there is certainly indifference.’

Although the default order of the clauses in a conditional is certainly the conditional subjunctive subclause first and then the present main clause, there are some examples where the order is reversed. In the example below, the reversed order is certain because of the conjunction *krui*, but the line is problematic because *wāntrā*

⁴⁷² The present may depict the event as very close and certain.

⁴⁷³ For *klyauṣṭsi*.

⁴⁷⁴ Thomas (1952: 29).

⁴⁷⁵ The passage in Vasubandhu’s *Abhidharmakośa* (de La Vallée Poussin 1980: I, 153) given by Sieg and Siegling (1953: 114) is not precise enough to settle the matter.

⁴⁷⁶ Sieg and Siegling (l.c., see footnote 475) suggest to correct into *toy no* ‘these however’.

seems to be a subjunctive morphologically, whereas we would syntactically expect a present.

B255a6⁴⁷⁷

keṃ ma tāllaṃ yoloytä | şek wänträ no
 earth not support:3SG.PRS evil.one always cover:3SG.SBJ? but
wotkäṃ kr_(u)i [10a]
 decide:3SG.SBJ if

‘The earth does not support the evil one, but it always covers him if it decides so.’

AS7Bb2⁴⁷⁸

cmela tu wästrä | yāmträ krenta yāmornta : [4c]
 birth:PL DEM make.ripe:3SG.PRS do:3SG.SBJ good deed:PL
cew yāmorsa sū | mā nemcek şpä tñmasträ 4
 DEM deed:PL DEM not certainly and be.born:3SG.PRS
 ‘It makes ripe for rebirths if one does good deeds; through this deed he is not certainly reborn.’

B291a4

• *m(a)nta āke weskau-ne kr_{ui} (nraimeṃ) entwe*
 never end say:1SG.PRS-3SG.SUFF if hell:ABL then
tsälpāträ •
 be.redeemed:3SG.SBJ
 ‘I will⁴⁷⁹ never tell his end if he is redeemed from hell then.’⁴⁸⁰

Very similar to the conditional pattern with a present apodosis is a pattern with a nominal apodosis:

B280.1⁴⁸¹

(nervām)şşe yānmān īke | (o)nuwaññe : [21c]
 nirvāṇa:ADJ reach:3SG.SBJ place immortal
tumēṃ mānte läklentse | mā şäp preke 21
 then so sorrow:GEN not and time
 ‘If he reaches the immortal *nirvāṇa* place, then from that moment the time of sorrow [lasts] no longer.’

⁴⁷⁷ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁴⁷⁸ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁴⁷⁹ A present in the Tocharian original.

⁴⁸⁰ Cf Schmidt (1983: 278).

⁴⁸¹ Verse: metre a, c, d: 7 | 4, b: 6 | 8 (a, c, d: 4+3 | 4 or 3+4 | 4; b: 6 | 4+4).

The living rules of the *prātimokṣasūtra* come in a variety of different structures (see 3.6.11, p 266), but many of them follow the conditional pattern with a subjunctive protasis and a present apodosis, or a nominal apodosis, as below.

IT247a6-b1

omte se yarmä pärkarñesa wi rsoñcä • pañäktentse
 there DEM measure length:PERL two span:DU Buddha:GEN
rasosa • pkantesa śle ywārcä • ñrets raso • tumem
 span:PERL crosswise with half fringe:GEN.PL span DEM:ABL
omṣap yāmtrā • ipäṣṣeñca ||
 more do:3SG.SBJ pātayantikā

‘There is that measure: in length two spans according to the Buddha span, crosswise one and a half,⁴⁸² [and] one span for the fringes. If he makes [it] more than that, [it is] a pātayantikā offence.’

3.6.3 CONDITIONAL WITH IMPERATIVE APODOSIS

The relatively independent character of the conditional subjunctive subclause is shown by the fact that it can also be followed by an imperative clause. Of course, these concern specific conditionals, not general principles.

In the example below, the conditionals are used to reason about possibilities. We find two times a subjunctive protasis followed by an imperative apodosis, of which the last is followed by a final clause in the present.

B107b3-4

maharṣinta posa kreś tākacer mant purwat
 great.sage:PL all:PERL good be:2PL.SBJ so receive:2PL.IPV
oñkarñai • mā tākacer wesi pokses posa śpālmem
 porridge not be:2PL.SBJ we:GEN tell:IPV.PL all:PERL excellent
rṣāke intsu ste cwi ka ṣ mant [b4] klāskem
 sage which be:3SG.PRS DEM:GEN EMPH and so bring:1PL.PRS
 ‘O great sages, if you are better than all, then receive this porridge! If you are not, tell us who is the sage that is better than all, so that to him indeed we bring it.’⁴⁸³

The following is said by king Araṇemi to the animals in the forest. It is reported by the two tree gods that are watching the whole scene of Uttara’s “kidnapping”. This conditional really concerns a possible future event.

⁴⁸² *śle-ywārcä* ‘with half’ is a calque on Skt. *sārdham* ‘one and a half’, literally ‘with half’.

⁴⁸³ In the Gilgit parallel, it is the Śuddhāvāsa gods who ask, *kiṃ asmākam anuprayacchatha āhosvid yo ’smadviśiṣṭatamaḥ* ‘Do you offer it to us, or to him who is better than us?’ (Gnoli 1977: 100, l. 4-5).

B88b2-3⁴⁸⁴

† *ñśamem* *wātkoṣ* † *kr_{ui}* *lkācer* *ñī* *so(ṁ)śke* : [2c]
 I:ABL separate:PRT.PTC if see:2PL.SBJ I:GEN little.son
ptsārwaṣṣat-ne *ñi* *yke_[b3]ne* † *ytārin* *empelyai* 2
 console:IPV.PL-3SG.SUFF I:GEN place:LOC road:LOC terrible
 ‘If you see my little son, who is separated from me, console him on [his] awful road instead of me!’⁴⁸⁵

3.6.4 OTHER CONDITIONALS

One example from an oneiromancy clearly is not concerned with a possible future event, but rather gives a possible interpretation of a certain dream type. The fact that this conditional subjunctive is part of reasoning may explain the optative apodosis that is otherwise unexpected. (The second part, with the possibilitive optative clause, returns in every line of this leaf, but the condition with a subjunctive is found only here.)

B511a3

† *inte* *nauṣamem* *niśācare* *tākaṁ* *wate* *dhvaje* *larenāmpa*
 when before jackal be:3SG.SBJ second crow dear:COM.PL
śīnmalñeṣṣe *palskalñe* *śarpi*
 coming:ADJ thought point.to:3SG.OPT
 ‘If a jackal is first and a crow second, this may point to thinking of coming together with the dear ones.’

The following example does not contain a subjunctive conditional, but it is best compared with the preceding. In this case, the conditional is in the optative and the apodosis is in the present, a combination that is not attested otherwise. The unusual combination of moods is certainly to be explained with the relation between conditional and consequence that is based on reason.

B197a2

tāka_{uy} *sak* *(w)ai* *lakle* *warpalñenta* *svabhāptsa*
 be:3SG.OPT happiness and sorrow experience:PL nature:PERL
upekṣ *warpalñe* *mākte* *aiśalle* *ste*
 indifference experience how know:GER be:3SG.PRS
 ‘If by nature there were experiences of happiness and sorrow, how is the experience of indifference to be understood?’⁴⁸⁶

⁴⁸⁴ Verse: the metre has unequal pādas, allegedly a-b: 8 † 7 † 6, c: 9 † 9, d: 7 † 6. However, in this poem, many pādas are one syllable too long.

⁴⁸⁵ Cf Couvreur (1954b: 102; see also Schmidt 2001: 317–318).

3.6.5 EVENTUAL

A large number of subjunctive subclauses are not straightforward conditional clauses: they introduce extra information that is not verified or certain, but may possibly be the case. These clauses, here termed “eventual”, are typically adnominal (the formula of the second example is analysed in detail by Pinault 1987: 80⁴⁸⁷).

B107a6

pilycalñene lalālu laukito rṣāke tākaṃ rṣākeṃne
 penance make.effort:PRT.PTC foreign sage be:3SG.SBJ sage:LOC.PL
špālmeṃ cwi wes tā oñkorñai pintwāt aiskem ·
 excellent DEM:GEN we DEM porridge alms give:1PL.PRS
 ‘A foreign sage who is trained in penance and best among the sages – to him we [will] give the porridge as alms.’

LP11a1

se⁴⁸⁸ tesa ṣap tākaṃ tu mā tārkanat
 what DEM:PERL more be:3SG.SBJ DEM not let.go:2SG.PRS
 ‘What is more than this, don’t let it [pass].’

3.6.6 ITERATIVE

In iterative clauses, at least the event of the subclause may take place several times, and often that of the main clause as well. Without specific tense reference, or with present reference, the main clause is in the present, while the subclause is in the subjunctive. With past tense reference, the subclause has an optative and the main clause an imperfect. The present iterative is close to the indefinite subclause type if the number of repetitions in the subclauses is irrelevant.

B241b1-2⁴⁸⁹

kos kos plaskau arāñc tññ[!] snai [b₂] – t⁴⁹⁰ yāmoṣ
 as.often.as think:1SG.SBJ heart your without do:PRT.PTC

⁴⁸⁶ Thomas (1967: 266): “Mag es von Natur die Empfindungen [von] Glück [Lust] und Leid geben, wie soll man das Indifferentempfinden verstehen?”

⁴⁸⁷ “Formule d’autorisation de passage”, type 3. Cf also Couvreur (1953a: 91). After Pinault, the formula can be restored in LP21.4 (*se tentsa ṣap tāk)am · t(u) parra mā tār(k)a(nat)*; LP28.1-2 (*se tesa) ṣap tākaṃ · tu mā tārkanat*; LP52.1 · *se t(e)sa ṣa(p) tākaṃ · tu mā tārkanat*; LP101.1 *s(e) tesa ṣap tākaṃ · tu mā tārkanat*); and LP102.1 (*se tesa ṣap tā)kaṃ · tu mā tārka(nat)*).

⁴⁸⁸ Relative.

⁴⁸⁹ Verse: metre 4 x 7[!] 7 (4+3[!] 4+3).

⁴⁹⁰ Hardly (*ke)t*, a variant of *keta* ‘harm’, if that word exists; in my view, certainly not (*ya)rm* (pace Pinault 2008: 330) because the *t* is very clear.

‘Whoever may be praised by you as refuge, to which doctrine you bind yourself, to that we bind ourselves too.’

B591a2-3⁴⁹⁵

<i>śuddhavāsnttāne</i>	<i>kosä</i>	<i>kca</i>	<i>sāmkaṃ</i> ⁴⁹⁶	<i>paramārth</i>
Śuddhavāsa	how.many	INDF	rise:3PL.SBJ?	highest.truth
<i>sak</i>	<i>päs</i>	<i>kälpāṣṣām</i>	<i>nervvāñä(ṣṣe em)</i> _[a3] <i>ṣkacce</i> ⁴⁹⁷ :	39
happiness	away	obtain:3SG.PRS	nirvāṇa:ADJ	eternal

‘No matter how many Śuddhavāsa gods rise here, [each] obtains happiness of the highest truth of the eternal nirvāṇa.’

3.6.8 CONCESSIVE

Concessive subjunctive clauses seem to be just another subtype of the eventual usage discussed in 3.6.5 (p 261): the information of the subclause is presented as irrelevant for the main clause.

A good example of a concessive subjunctive is offered by the Udānavarga translations, since the Sanskrit original has a present, which apparently the translators did not want to keep in the Tocharian. This correspondence is attested both for the very literal Udānavarga bilinguals (IT579) and for the Udānālankāra, where the language is artificial, but nevertheless closer to normal Tocharian (B31).

B31a4 = IT579b3

<i>totkāts</i>	<i>aiku</i>	<i>kwri</i>	<i>tākaṃ</i>
little	know:PRT.PTC	if	be:3SG.SBJ

‘if he is [someone who] knows little’

Uv13.12a

<i>alpajñato</i>	<i>’pi</i>	<i>ced</i>	<i>bhavati</i>
of.little.knowledge	even	if	be:3SG.PRS

‘even if he is someone of little knowledge’⁴⁹⁸

⁴⁹⁵ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

⁴⁹⁶ Sieg and Siegling correct to *tsāmkaṃ* (1953: 376). Although the leaf is clearly late, a sound change of initial *ts* to *s* can be dismissed with certainty, as this initial is very well attested in all late manuscripts. If the correction is alright, the problem is why the verb form *tsāmkaṃ* is singular whereas *śuddhavāsnttāne* seems to stand for *śuddhavāsānta tne*, i.e. a plural (metrically shortened *śuddhavāsnta tne*). Perhaps both problems can be solved together, if we assume that a syllable <tsam> in the original was damaged or wrong, so that the <t> could be taken to be a length stroke, i.e. <ā>.

⁴⁹⁷ For *nervvāñäṣṣe emṣkecce*.

⁴⁹⁸ Uv13.12b-d *śīleṣu susamāhitaḥ* [b] *vidvāṃsas taṃ praśaṃsanti* [c] *śuddhājīvam atandritam* [d] ‘[if] he practices the morale, the sages honour him because his life is pure and free from lassitude.’ (Bernhard 1965: 204; Chakravarti 1930: 160).

3.6.9 FINAL

There are some cases of subjunctive clauses that denote events that are definitely to the benefit of the speaker, but can hardly be considered certain enough to classify them as futures, so that one could be tempted to characterise them as wishes. In my interpretation, however, these can be explained as postponed subjunctive subclauses with final value. *mākte* ‘how; so’ may be used as a final conjunction, but it may also be lacking. These final clauses are always postponed; much more frequent are infinite final clauses that precede the main clause, the normal type being an infinitive clause (see Thomas 1954).

IT5b1⁴⁹⁹

karuṇaṣṣe *tr(o)ṇik* *prutk(a)r* | *tune* *taukau-c*
 compassion:ADJ hollow fill.up:IPV.SG therein hide:1SG.SBJ-2SG.SUFF

saim *pācer* | *lāma-ñ* *prosko* 13
 protection father sit:3SG.SBJ-1SG.SUFF fear

‘Fill up the hollow of compassion! Therein I will hide, in your protection, father, so that my fear will rest!’⁵⁰⁰

Cp32.11-12

ñake *aśari* *teri* *plāskamñ-me* *mākte* *saṅkrām* *wtetse*
 now acārya rule think:3SG.SBJ-3PL.SUFF how monastery secondly
keta *mā* – ·k· *saṅkantse* [12] *ayāto* *nesaññe* *mā* *karsnatār*
 estate? not community:GEN proper state not cut:3SG.PRS

‘May the acārya now think about a way [approach] for us,⁵⁰¹ so that the monastery will not (lose estate?)⁵⁰² for a second time, and the proper situation of the community will not be terminated.’⁵⁰³

In 3.7.5 (p 294), I argue that the particle *mai* is exclusively used in questions to express doubt, so that one could translate the example below as a question. If that analysis of *mai* is not accepted, the subjunctive clause of pāda d below could be analysed as a final clause. In any case, *knetār-me* is not a *wish*-subjunctive.

⁴⁹⁹ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

⁵⁰⁰ Cf Pinault (2008: 322-323, 328).

⁵⁰¹ This is without doubt a polite third person address.

⁵⁰² Perhaps we can complete (*tār*)*k(am)*, but the meaning of *keta* remains problematic, too. Alternatively, *keta* could be related to Tocharian A *kat* ‘harm’.

⁵⁰³ For text, translation and commentary, cf Pinault (1984a), who translates: “À présent, l’Ācārya voudra bien considérer pour nous la façon [d’agir] en sorte que le monastère ne [...] pas à nouveau de (préjudice) [et] que la situation convenable de la communauté ne soit pas brisée.” (1984a: 32).

B107b1⁵⁰⁴

purwar *ce* *pinwāt* | *mā* *nai* *ñakta* *prañkäs-me* : [c]
 receive:IPV.SG DEM alms not PCL god reject:2SG.PRS/SBJ-PL.SUFF
mai *no* *knetär-me* | *ritau* *akālk* *laukaññe* : [d]
 MAI but fulfil:3SG.SBJ-PL.SUFF bind:PRT.PTC wish long
 ‘Accept these alms and do not reject us, god, so that the wish [we] long cherished
 will be fulfilled!’

3.6.10 COMPARED TO THE PRESENT

There are hardly any examples of present conditionals. Most instances I have found are from Udānavarga and Udānālāṅkāra texts, where they can easily be explained as slavish copies of the original, since Sanskrit has no modal form in those cases, i.e. they would be instances of “modal calques”.

The example below is from Mātṛceṭa’s Śatapañcāsatka 83, where the Sanskrit is immediately preceding. There are two possibilities: the protasis is a temporal and not a hypothetical clause, which caused the present, or, perhaps more likely, the Tocharian B present is a slavish copy of the Sanskrit present.

B251a2

[SKT:] (*matam*) *yadi* *vigarha(ṃ)ti* (• [TB:] *pelaikne*) *kwri*
 doctrine if contemn:3PL.PRS law if
nākse(nt)rā
 blame:3PL.PRS
 ‘If [fools] contemn your teaching • If they blaim the law.’⁵⁰⁵

The following example from the Abhiniṣkramaṇanāṭaka can probably not be explained in the same way (although this text has some constructions that seem to occur only there, possibly copied from a Sanskrit original, see *mānt tākaṃ* ‘so it will be’ in 3.5.5, p 238). In this case, the present may be due to the type of the conditional, since the relation is clearly one of inference, i.e. the speaker *knows* that there is no self (cf also 3.6.4, p 260).

AS121b5

krui *añme* *mā* *nesām* *kete* *ñāke* *tsālpālñe* *pālskanātrā* •
 if self not be:3SG.PRS who:GEN now deliverance think:3SG.PRS
śāṃmaṣṣālñe *wa* (•)
 fetter PCL

⁵⁰⁴ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁵⁰⁵ See Shackleton Bailey (1951: 168).

‘If there is no “self”, by whom now is deliverance imagined?⁵⁰⁶ Nevertheless [there is] a fetter.’⁵⁰⁷

3.6.11 COMPARED TO NOMINAL CLAUSES

Nominal clauses are normal in Tocharian B, and they occur quite frequently. However, mostly only the present copula can be left out, whereas past or modal forms are kept; or, in other words, nominal clauses can only be used if a parallel, isofunctional verbal clause has a present. This means that if a subjunctive protasis is combined with a nominal apodosis, they are most likely to be of the subjunctive plus present type, cf for instance:

B255b3⁵⁰⁸

yamor kešä taššeñca | se kr_ui sraukaṃ śamane 12

action number put:AG.N DEM if die:3SG.SBJ alive

‘He who is alive takes the deed into account [only] when he dies.’

In the Karmavibhaṅga, we find some pairs of parallel nominal and subjunctive clauses. In the first pair, the sentences are very parallel indeed, and the difference apparently has only a metrical cause. This freedom of construction may be explained with the fact the subjunctive subclause of AS7Ea2 (the first example) is reduced to only an apposition in AS7Eb3 (the second example).

AS7Ea2 = B521b6⁵⁰⁹

nauṣäk skwassoñc⁵¹⁰ tākaṃ | skwasso(ñc p)ostäm⁵¹¹ mäskenträ : [5a]

before happy be:3PL.SBJ happy afterwards be:3PL.PRS

‘(But what is the deed through which beings), if they are happy first, become happy afterwards [too]?’

AS7Eb3⁵¹²

se se yāmor ste | kūcesa tne wnołmi | nauṣ
DEM DEM deed be:3SG.PRS what:PERL here being:PL before

lāklessoñc postäm rano | lāklessoñc šek mäs(kenträ 8) :
sorrowful afterwards also sorrowful always be:3PL.PRS

⁵⁰⁶ Or: ‘whose deliverance is thought of?’

⁵⁰⁷ Cf Couvreur (1953b: 281).

⁵⁰⁸ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁵⁰⁹ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

⁵¹⁰ B521b6 ///soñc.

⁵¹¹ B521b6 *skwassoñc postä*.

⁵¹² Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

‘That is the deed through which beings here, sorrowful before, become always sorrowful afterwards too.’

The second pair, on the other hand, may really be due to a difference in meaning, since the first example with the subjunctive clause (AS7Gb2) is clearly concessive, whereas the second example (AS7Gb6) is not.

AS7Gb2⁵¹³

(*kuse* *no*) *su* *yāmor* | *iñcewsa* *wnolmi* | *cmentär* *rano*
 what but DEM deed which:PERL being:PL be.born:3PL.SBJ also
ette *ymainne* | *kreñc* *no* *lkātsi* *māskenträ* : [21a]⁵¹⁴
 low state:LOC.PL good but see:INF be:3PL.PRS

‘But what is the deed through which beings, even if they are born in lower states, become good to look at, ...’

AS7Gb6⁵¹⁵

(*intsu* *no* *yā*)*mor* | *mā(kc)e(wsa)* *wnolmi* | *ette* *ymainne*
 which but deed which:PERL being:PL low state:LOC.PL
tetemošä | *yolo-were* *māskenträ* : [23a]
 be.born:PRT.PTC of.bad.smell be:3PL.PRS

‘But what deed is it through which beings, born in lower states, are of bad smell?’

Although it follows a lacuna, the following seems to be a certain example of a nominal indefinite subclause; unfortunately, it is isolated and it is difficult to offer an explanation.

AS12Ea2

/// *kos* *tānwä* *tot* *tānwāntse* *šärmtsā* *mālkwer* .
 as.much.as love so.much love:GEN cause:PERL milk
 ‘As much as [there is] love, so much [is there] milk because of the love.’

The following example is usually translated as if it had a nominal protasis with a subjunctive apodosis, a combination that is unique and difficult to explain. However, this translation requires the correction of *tānwaññeñcä* (thus the manuscript) into *tānwaññeñcaṃ*, itself in turn for *tānwaññeñcañ* ‘loving (nom.pl.)’ (Sieg and Siegling

⁵¹³ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

⁵¹⁴ Continued in pāda 21b: *takarkṣñ* *eršeñcañ* | *eśnaisāñ wīna* | *ṣm(a)re-yetse ṣmare-ere* | *ṣ(mare)* /// ‘causing faith, [who become] a pleasure to the eyes, of fine skin, of fine appearance, of fine ...’.

⁵¹⁵ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

1953: 17⁵¹⁶). Since there is no problem whatsoever with an analysis of *tāñwaṃñeñcä* as a 3pl. prs.-sbj. (here in subjunctive function) with a 2sg. pronoun suffix, it is clearly preferable to keep to the original reading of the manuscript, which allows the elimination of this alleged nominal protasis with subjunctive apodosis:

B78a3

kr_{ui} nke cai tāñwaṃñeñ-cä ot nke ñis ysape
 if then DEM love:3PL.PRS/SBJ-2SG.SUFF then then I close
ykāk källāt
 still obtain:2SG.SBJ

‘Since if they are kind to you, then you will find me close (to you) all the same.’

3.6.12 COMPARED TO THE OPTATIVE

Conditionals with optative protasis and optative apodosis are rather frequent; often, they are used in metaphors. Mostly they denote unlikely – but still possible – future events.

B284b5-6⁵¹⁷

kektseñ mā takom_i onolmentso šaiššene : [8a]
 body not be:3PL.OPT being:GEN.PL world:LOC
mänta wärponträ_i kektseñšana_[b6] läklenta : [8b]
 not.at.all receive:3PL.OPT body:ADJ sorrow:PL
pälsko mā tāko_i pälskoššana läklenta : [8c]
 mind not be:3SG.OPT mind:ADJ sorrow:PL
cek wärñai rano_i mänta takom šaiššene 8
 DEM including also not.at.all be:3PL.OPT world:LOC

‘If the beings in the world had no bodies, they would not undergo bodily pains at all. If there were no mind, pains of the mind would not be there at all in the world either.’

B407a5-b2⁵¹⁸

snai preñke takoy sa kenä yke postām po_[a6] wars_o
 without island be:3SG.OPT DEM earth place after all water:PERL
ite [24b]⁵¹⁹
 full

⁵¹⁶ Followed by Couvreur (1954b: 100) and Schmidt (2001: 308): “Wenn diese aber mitleidig sind, dann wirst du mich doch noch in (ihrer) Nähe finden.”

⁵¹⁷ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁵¹⁸ Verse: metre 4 x 5 | 7 | 5 (5 | 3+4 | 5) or 6 | 6 | 5.

⁵¹⁹ This pāda is two syllables short.

ešnesa meñkitse | tākoy kacāp ompä | päkre šāyeñca [a₇] [24c]
 eye:PERL.DU lacking be:3SG.OPT turtle there long live:AG.N

pyorye šāp tākoy | cew warne somo lyautai | läñktsa mā
 yoke and be:3SG.OPT DEM water:LOC one hole light not

kly(e)ñca 24 [b₁]

stand:AG.N

kānte pikwala | epīñkte kaccap su no | tālašši ašco [25a]
 hundred year:PL within turtle DEM but lift:3SG.IPF~OPT head

*rāmoytärme*_[b₂]⁵²⁰ *ka | cpi ašce lyautaiyne tā_u | sälkoytär*
 bow:3SG.OPT~quickly just DEM:GEN head hole:LOC DEM pull.out:3SG.OPT

kewcä [25b]

up

‘If this earth were without island and full of water all over, and there were a turtle without eyes that lived there for a long time, and there were also a yoke⁵²¹ in this water with only one hole, light and not steady, and in hundred years this turtle lifted its head and pulled⁵²² it in quickly only once, and then its head would be pulled up in that hole.’

This multiple protasis with simple apodosis illustrates how rare it is that animal beings are reborn as humans.⁵²³

I have found one example with an optative protasis and a nominal apodosis, but since the interpretation is a bit shaky and the structure of the poem is unclear, it must remain uncertain.

B78a1-2⁵²⁴

kr_ui ñke tetekā šänmyeñ yaššūcañ lareñ šauly ñi
 if now suddenly come:3PL.OPT beggars dear life I:GEN

yašyeñtrā sāw ñi wrottsa [a₂] *katkauña mā cakravārtñe*
 beg:3PL.OPT DEM I:GEN great joy not cakravartin.rank

‘Even if now suddenly beggars came and begged for my dear life, this is [still] a great joy for me, not the cakravartin rank.’⁵²⁵

⁵²⁰ For *rāmoytär rmer*.

⁵²¹ The identification of *pyorye* as ‘yoke’ is based on this passage. In Chinese parallels, the expression is rather ‘floating piece of wood with one hole’ or ‘hole in a floating log’ (Allon 2007, especially 246).

⁵²² Literally: ‘bowed’.

⁵²³ B407b2-3 *tusa amāskai | lwa*_[b₃]*šāmemeñ onolmeñtsa | yšamna cmeti* [25c] ‘So difficult is it for beings to be reborn from the animals among men’ (the last unit of this pāda is one syllable short; perhaps we have to read *išamna* instead).

⁵²⁴ Verse, but metre not totally clear.

B278b1⁵²⁶

k_use su tākoy śle-palsko | k_use mā kalloy ce
 who DEM be:3SG.OPT with.mind who not obtain:3SG.OPT DEM
ykene | ymetse śmoṃññai 16
 place consciousness:GEN basis

‘Who would he be who, endowed with reason,⁵²⁷ would not attain the basis of consciousness in that place.’

In one text praising the merits of confession, we find a mixture of optatives and subjunctives in a pattern that is otherwise rather strict. The strophes first mention a certain number of meritorious deeds, and then they conclude that these are nothing compared to the meritorious deed of confession. Thus, the first clauses are indefinite: they present information that is presented as irrelevant for the truth of the conclusion. Now it seems that (more or less) realistic meritorious deeds are in the subjunctive, but fantastic ones are in the optative.

B290.1-25²⁸

(aśvame)t wārñai | yāmā(ṃ) wrotstsana telkanma • [3a]
 aśvamedha including do:3SG.SBJ great sacrifice:PL
pañcvarṣikānta | kakonta wrocceṃ stamāṣṣaṃ⁵²⁹ [3b]
 pañcavarṣika:PL invitation:PL great establish:3SG.PRS/SBJ
celāmāññana | ain wat āyornt⁵³⁰ asta yettse [3c]
 prominent? give:3SG.SBJ or gift:PL bone:PL skin
(yu)_[2]kṣām yarposa āstreṃ 3 [e]⁵³⁰
 surpass:3SG.PRS merit:PERL pure

‘One may carry out great sacrifices such as the *aśvamedha*, one may establish *pañcavarṣikas* and great invitations, or one may give prominent (?) gifts [such as] bones, skin, ... (– if one confesses, then this) surpasses [it] through its pure merit.’⁵³¹

⁵²⁵ Couvreur (1954b: 99; see also Schmidt 2001: 307).

⁵²⁶ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

⁵²⁷ *śle-palsko* looks like a calque on a Sanskrit word; according to the SWTF (II, 247, col. 2), an adj. *sacittaka-* is indeed attested. ‘endowed with reason’ tentatively follows Monier-Williams (1899: 1130, col. 3 - 1131, col. 1 under *sācitta-*).

⁵²⁸ Verse: 5 pāda metre 4 x 5 | 8 (5 | 5+3 or once 5 | 4+4) + 1 x 8 | 8 | 5 (4+4 | 4+4 | 5).

⁵²⁹ For *stamāṣṣaṃ* / *stāmāṣṣan*/.

⁵³⁰ Of line 3d only the fragmentary beginning *mā* /// is preserved.

⁵³¹ Thomas (1970: 260).

B290.2-3⁵³²

yarke *še* *yāmi* † *kiṭanmasa*⁵³³ *arhantentso* • [4a]
 honour one do:3SG.OPT koṭi:PERL.PL Arhat:GEN.PL
pärkreṃ *prekentsa* † *mant* *ra* *pratyaiikapudñāktets* • [4b]
 long time:PERL.PL so also pratyekabuddha:GEN.PL
eritār· /// [4c]
 evoke:3SG.OPT
 [3] *yāmtār* *deśit* † *su* *ce_u* *yukṣām* *yarpos* / *aurce* †
 do:3SG.SBJ confession DEM DEM surpass:3SG.PRS merit:PERL broad
meñe *ściriṃ* *ra* 4[e]
 moon star:PL like

‘One might honour *koṭis* (tens of millions) of Arhats, and likewise during a long time pratyekabuddhas, one might evoke ... – if one confesses, this surpasses it through extensive merit like the moon the stars.’⁵³⁴

B290.3-4⁵³⁵

ptanma *wrotsana* † *še* *śarirtsana* *yamītrā* [5a]
 stūpa:PL great one relic:PL do:3SG.OPT
akessont *āstre* † *kātkoṣ* *wat* *yāmtār* *deśito* • [5d]⁵³⁶
 final pure cross:PRT.PTC or do:3SG.SBJ confession
su *yarpo* *po* *yukṣām* *noṣwent* † *kaumñākte* *ra* /// [5e]
 DEM merit all surpass:3SG.PRS early sun like
 ‘One might bestow relics [unto] great stūpas,⁵³⁷ ... – if one confesses that one has broken the pure prescriptions, this merit surpasses all earlier [merit] like the sun (the clouds) (?) ...’⁵³⁸

First, meritorious deeds such as *aśvamedha* sacrifices, bone relique offers, etc (strophe 3) are represented as realisable with the subjunctive, and then the rhetorical style builds up to continue with fantastic things like countless reverences to Arhats etc in the optative. The conclusion contains a simple general conditional with a subjunctive protasis and a present apodosis. Possibly, the rare 5 line metre reflects this rhetorical structure with a break between four lines about the “irrelevant” merits and the fifth line with the merit of confession that is to be highlighted.

⁵³² Verse: 5 pāda metre 4 x 5 † 8 (5 † 5+3) + 1 x 8 † 8 † 5 (4+4 † 4+4 † 5).

⁵³³ For *koṭanmasa*.

⁵³⁴ Schmidt (1974: 412).

⁵³⁵ Verse: metre 4 x 5 † 8 (5 † 5+3) † 1 x 8 † 8 † 5 (4+4 † 4+4 † 5).

⁵³⁶ Line 4 starts with the fragmentary end of pāda 5c: /// *śikṣapāt* ‘... moral precept ...’.

⁵³⁷ Schmidt (1974: 462): “Möge einer grosse Stūpas mit Reliquien anlegen, ...”.

⁵³⁸ Hackstein (1995: 98).

3.6.13 CONDITIONALS IN PRĀTIMOKṢA TEXTS

The prātimokṣasūtra contains living rules for monks and one could expect that the syntactic structure of these rules is rather standard and repetitive. Indeed, we find repetitive texts with very standardised syntactic patterns, but there are quite a few of such patterns, it seems. Of course, this has to do in part with the varying character of the texts: some contain only rules, some also a commentary, some discuss the casuistics of a rule in detail. However, we also find differences among texts that are of a similar type. Moreover, prātimokṣa conditionals can be very complex and sometimes they seem to reach the upper limit of what is syntactically practicable. Perhaps that is the reason why there are some rare patterns that seem to occur only in this text genre. Therefore, I present some examples of these patterns below.

The basic pattern seems to be following, where a present relative clause is followed by the type of offence:

IT246a2

<i>se</i> ⁵³⁹	<i>ṣamāne</i>	<i>ṣaṇ</i>	<i>ṣarsa</i>	<i>keṃ</i>	<i>rapanaṃ</i>	<i>rāpatsi</i>	<i>wat</i>
which	monk	REFL	hand:PERL	earth	dig:3SG.PRS	dig:INF	or
<i>watkāṣṣāṃ</i>		<i>pāyṭi</i> 73					
command:3SG.PRS/SBJ		pāṭayantikā					

‘Which monk digs up the earth with his own hand, or commands [somebody else] to dig it up – pāṭayantikā.’

Usually, the last part is completed as a nominal clause, ‘[this is] a pāṭayantikā [offence]’, or a verbal one, ‘[commits] a pāṭayantikā [offence]’, but also in the Tocharian original, the style is somewhat telegraphic. This pattern is a direct copy of Sanskrit, cf *yaḥ punar bhikṣuḥ pṛthivīm khanyāt khānayed vā pāṭayantikā* 73 (von Simson 2000: 228). Von Simson translates “Wenn ein Mönch die Erde aufgräbt oder aufgraben lässt, so ist es ein Pāṭayantikā-Vergehen.” (p 298), but a more literal translation could be ‘Which monk digs up the earth or has it dug up – pāṭayantikā.’; in the Sanskrit sentence, there is no conditional construction. If the Tocharian construction is translated as a conditional, as is sometimes done, this yields the problem that the conditional is not marked, i.e. one would expect a subjunctive conditional under all circumstances.⁵⁴⁰

⁵³⁹ Relative.

⁵⁴⁰ A strange mixture of moods was usually assumed for IT124a4-5 = IT246a1-2 *se ṣamāne meṇki ikāṃ pikwalaṃṇēpi onolmentse wasaṃpāt yamaṣṣāṃ pāyṭi su mā wasaṃpaṃ tākaṃ • cai ṣamāni po naṣṣalyi* 72 ‘Which monk ordains a person under twenty – pāṭayantikā. He will not be [sbj.] ordained. The monks are all to be reproached.’ (cf Couvreur 1954a: 47, 49). However, this interpretation was based on a wrong reading of the passage. The correct reading is *su mā wasaṃpaṃṇāke* •, i.e. ‘he [is] not ordained’ (Peyrot 2007a: №124, №246).

To this basic pattern, additional eventual or conditional clauses may be added, which are then in the subjunctive.

IT246a4-b1

*se*⁵⁴¹ *ṣamāne* *saṅkantse* *pelaiykneṣṣe* *wāntare* *wātkau*
 which monk saṅgha law:ADJ matter decide:PRT.PTC
tākaṃ *amplākätte* *parra* *tseṅketār* *pāyti* 77
 be:3SG.SBJ without.permission outside rise:3SG.PRS pātayantikā
 ‘Which monk stands up without permission when a law matter of the saṅgha is decided – pātayantikā.’

Regular conditionals are also found, mostly – but not exclusively – in the casuistics of a rule, i.e. in the discussion of special circumstances, exceptions etc. Simple types are the following:

B326a2

aitār *naissargi* *māsketār*
 take:3SG.SBJ niḥsargikā be:3SG.PRS
 ‘If he takes it, it is a niḥsargikā pātayantikā offence.’

B333a4-5

su *no* *cwi* *speltke*_[a5]*sa* *srukalyñe* *yaṃnmaṃ* *su* *mā* *ṣpā*
 it but DEM:GEN effort:PERL death obtain:3SG.SBJ DEM not and
ṣamāne *māsketār*
 monk be:3SG.PRS
 ‘If by his effort it attains death, he is no longer a monk.’

The apodosis of this condition is elaborated with a description of all that the offending monk loses because of this offence (his monkhood, dignity, etc).⁵⁴²

In the following fragmentary example it is clear that the subjunctives are also copies of the Sanskrit; in this text, conditional subjunctives are used to render conditional optatives of the original.

B317a2

/// (tri)t(e)sa *alaṣṣälle* *klautkā*⁵⁴³ *kā(rtse* *mā*
 third:PERL keep.away:PRS.GER turn.away:3SG.SBJ good not

⁵⁴¹ Relative.

⁵⁴² To me it seems probable that it belongs to pārājika 3 about killing, but in B333a8 there is a formula which seems to belong to pārājika 4 about lying instead, which could point to ap-
 purtenance of the whole leaf to that rule.

⁵⁴³ For *klautkaṃ*.

klaut)*kä*⁵⁴⁴*pā* 5turn.away:3SG.SBJ *pā*tayantikā

‘He is to be kept away for a (second and a) third time. If he turns away [from his heretic viewpoint], it is good; if he does not turn away, it is a *pā*tayantikā offence.’

Cf the Skt. parallel (*dv*)*ir api trir api samanusiṣyamāṇas tad vastu pratiniḥsrjed ity evaṃ kuśalaṃ no cet pratiniḥsrjet pātayantikā* 55 ‘If after having been admonished two or three times he gives up the point of view, then it is good; if however he does not give it up, it is *pā*tayantikā offence. 55’ (von Simson 2000: 220, 296). In this example, we can clearly see that the Sanskrit conditional optative *pratiniḥsrjet* is rendered by the conditional subjunctive *klautkā* in Tocharian, and the nominal apodosis is kept as such (which results in good Tocharian grammar).

In one text, however, we find three examples of such a Sanskrit conditional optative that is rendered by a Tocharian optative as well:

IT247b4-5

māksu no ṣamāne • pañāktentse wāstsintse yarmtsā
 which but monk Buddha:GEN garment:GEN measure:PERL

wastsi yamītrā • oṃṣṣap wat pañāktāññe wāstsimeṃ •
 garment do:3SG.OPT more or Buddha:ADJ garment:ABL

*ipāṣṣeñca •**pā*tayantikā

‘Which monk would make a garment according to the measure of the garment of the Buddha, or exceeding the Buddha garment – *pā*tayantikā.’

Cf from Sanskrit *pā*tayantikā 90: *yaḥ punar bhikṣuḥ sugatacīvarapramāṇena cīvaraṃ kārayed uttaraṃ vā sugatacīvarāt pātayantikā* ‘Wenn sich ein Mönch ein Gewand nach dem Sugata-Gewandmaß anfertigen lässt oder eines, das die Sugata-Gewand (größe) Überschreitet, so ist es ein *Pā*tayantikā-Vergehen.’ (von Simson 2000: 235, 301). Apart from the causative *kārayed* vs the non-causative *yamītrā* (the unattested causative would have been *yāmāṣṣitrā*), the Tocharian construction is an exact copy of the Sanskrit model. It seems advisable, therefore, to attribute this peculiar usage of the optative in Tocharian to a “wrong” rendering of the Sanskrit optative where actually a subjunctive should have been used, as in the example cited above. (That the Tocharian optative was seen as the equivalent of the Tocharian optative is clear from a.o. the Udānavarga bilinguals.)

There are some examples of present clauses that interrupt a series of conditional subjunctives. In all cases, the conditional structure is very complex and the best solution seems to assume that a very long conditional can be interrupted by presents

⁵⁴⁴ For *klautkāṃ*. Thus to be read pace Sieg and Siegling (1953: 204).

that give further detailed information. In one leaf, B334, this pattern occurs all over, so that the identification of the verb forms is very clear.

B334a3-6

ṣamānentse yśelmi pālskone tsa_[a4]ñkaṃ kwipe-ike ke_uwco
monk:GEN lust.feeling:PL mind:LOC rise:3PL.SBJ shame.place high

kalltārr-ne tu maśne enkastār
stand:3SG.PRS-3SG.SUFF DEM fist:LOC take:3SG.PRS

nuskaṣṣāmn-ne_[a5] tune swāralyñe yamastār krāke
squeeze:3SG.PRS-3SG.SUFF therein pleasure do:3SG.PRS filth

lān-ne saṃghā-trāñ(k)ä kätä_[a6]ñkām
go.out:3SG.SBJ-3SG.SUFF saṃghāvaśeṣa.offence cross:3SG.PRS

‘If lust feelings arise in the mind of a monk⁵⁴⁵ – his shame [i.e. penis] stands high, he takes it in his fist, he squeezes it and he enjoys that – and his filth [i.e. sperm] comes out, then he commits a saṃghāvaśeṣa offence.’⁵⁴⁶

Alternatively, one could try to read the whole sequence as two conditionals, but this does not yield a very convincing interpretation: ‘If lust feelings arise in the mind of a monk, then his penis stands high, he takes it in his fist, he squeezes it and he enjoys the pleasure. If filth comes out, then he commits a saṃghāvaśeṣa offence.’

Illustrative of the complicated structure of prātimokṣa commentaries is also the following:

IT127b4-6

• enestai yāmu tākaṃ • tesa warñai ce ra tsa
secretly do:PRT.PTC be:3SG.SBJ DEM:PERL including DEM also PCL

alyekepi karep yamaṣām • yāmtsi wat watkāṣṣām
other harm do:3SG.PRS do:INF or command:3SG.PRS/SBJ

wāstu ite tākaṃ pāra • || wāstu ite mā tākaṃ
dwelling? full be:3SG.SBJ pārājika dwelling? full not be:3SG.SBJ

stu • || k_ucesa śaumonmeṃ kramarcesa : para || tusa
sthūla somehow man:ABL heavy:PERL pārājika thus

amānuṣenmeṃ lwāmeṃ stu • || k_ucesa śaumonmeṃ lai_wce
non.human:ABL animal:ABL sthūla somehow man:ABL light

waipeccesa stu • || tusa amānuṣenmeṃ lwāmeṃ du • ||
possession:PERL sthūla thus non.human:ABL animal:ABL duṣkṛta

‘If it is done secretly, [and] he does in some way harm to another in a comparable manner, or causes [somebody else] to do [so], and it is inside a dwelling [?],⁵⁴⁷

⁵⁴⁵ I.e. ‘if a monk gets lust feelings’.

⁵⁴⁶ Cf Schmidt (1997b: 240); he makes no mention of the interchange of present and subjunctive forms.

then it is a pārājika offence. If it is not inside a dwelling, then it is a grave (sthūla) offence. [If it is] somehow from a human with respect to an important [possession], then it is a pārājika offence. [If it is] like that, [but] from a non-human or an animal, then it is a grave (sthūla) offence. [If it is] somehow from a human with respect to an unimportant possession, then it is a grave (sthūla) offence. [If it is] like that, [but] from a non-human or an animal, then it is a duṣkṛta offence.’

The intervening details may be in the present, even in a protasis complex, as long as the key sentences are in the subjunctive. In the repetitive offence classification the subjunctive can be left out, so that the sentences can be nominal.

3.7 OTHER USES OF THE TOCHARIAN B SUBJUNCTIVE

In this section, I briefly discuss some other functions of the Tocharian B subjunctive. First, I discuss compound tenses and moods (3.7.1-3.7.4, p 276). Second, I discuss adverbials and particles (3.7.5, p 287). Third, I argue that the usage of the present-subjunctive is not different from that of the present and the subjunctive: the ambiguity of the forms has no repercussions on their use (3.7.6, p 317).

3.7.1 SUBJUNCTIVE GERUND WITH IMPERFECT COPULA

The subjunctive gerund can be combined with a finite imperfect form of the copula to denote irreal events (Thomas 1952: 43-47, Krause and Thomas 1960: 192, Pinault 1997: 476). When used as a conditional, this construction seems to form counterfactuals, but in non-conditional clauses this is certainly not a necessary component of the meaning. Therefore, counterfactuality cannot be the core meaning of this construction.

In conditionals, the counterfactual meaning follows from the past tense reference: it is about a past event that could have resulted in another past event, but now neither the conditional event nor the consequence event can take place anymore.

B33a7-8⁵⁴⁸

<i>kwri</i>	<i>yarke</i>	<i>peti</i> †	<i>ṣey-me</i>	<i>kurpelle</i> ⁵⁴⁹ †	<i>ost</i>
if	reverence	flattery	be:3SG.IPF-PL.SUFF	be.concerned:SBJ.GER?	house
<i>olyo</i>	<i>ṣaicer</i> †	<i>makci</i>	<i>lamalyi</i> : [4a]		
more	be:2PL.IPF	self	sit:SBJ.GER		

⁵⁴⁷ *wāstu ite* is unclear; I assume that *wāstu* is borrowed from Skt. *vāstu*, but ‘if the dwelling is full’ yields no sensible interpretation, so that I tentatively translate ‘inside’.

⁵⁴⁸ Verse: metre a: 5 † 5 † 5 † 5, b: 8 † 7 † 7, c: 5 † 5, d: 8 † 7 (b: 4+4 † 4+3 † 4+3, d: 4+4 † 4+3).

⁵⁴⁹ This form looks like a prs.ger. next to a sbj.ger. *kurpalle**, but such a subjunctive stem is not attested and apparently *kurpelle* is used as a sbj.ger. here (see also Thomas 1952: 45).

If you had been concerned about reverence and flattery, and you had yourselves further stayed in your [own] hous[es], then each would certainly have obtained reverence from his male and female slaves, and gathered possessions.’⁵⁵⁰

The following example certainly contains a complex construction, but its understanding is made difficult by a lacuna in pāda 30c. Because *ot* ‘then’ in pāda 30b is followed by *krui* ‘if’ in pāda 30c, it is very likely that this strophe contains two conditionals. I think the first is logically reversed, i.e. from the logical conditional ‘if there had been great need, another Buddha would have arisen’ follows the inferential conditional ‘if another Buddha had arisen, there would have been great need’.⁵⁵¹ The second conditional probably forms a chiasmus with the first: we know that no other Buddha has arisen, so there cannot have been great need. Moreover, had there been, then the Buddha had stayed longer (instead of going to the nirvāṇa).⁵⁵²

B273b3-5⁵⁵³

<i>kānte</i>	<i>pi(k)uḷa</i>	<i>kr_uī</i>	<i>e</i> _[b4]	<i>piṅkte</i>	<i>tsānkälle</i>	<i>še</i> _i	[30a]
hundred	year:PL	if	within		arise:SBJ.GER	be:3SG.IPF	
<i>allek</i>	<i>poysī</i>	<i>ot</i>	<i>rā</i>	<i>mākā</i>	<i>sne_ukī</i>	<i>ynāñmā</i>	[30b]
other	omniscient	then	also	great	need	desire	
<i>ku_uce</i>	<i>šāp</i>	<i>no</i>	<i>k(r_u)ī</i> ⁵⁵⁴	<i>///</i> ⁵⁵⁵	<i>///</i> _[b5]	<i>pyāppya_isa</i>	<i>šāp</i> [30c]
because	and	but	if			flower:PERL	and

⁵⁵⁰ Sieg and Siegling (1949: II, 55) slightly different.

⁵⁵¹ In terms of logic, this reversal is only possible with “if and only if” conditionals, of course.

³⁵² Krause and Thomas offer a completely different interpretation, but this is only possible because they leave out the difficult part in the middle (1960: 192): “wenn innerhalb von hundert Jahren ein anderer Allerkenner aufgestanden wäre, dann eben ... hättest du wohl schnell erlöschen können”. Much better is Thomas’ earlier translation (1952: 45): “(Wenn) innerhalb von 100 Jahren ein anderer Alleswissender aufgestanden wäre, dann auch der großen Not würdig, ... [dann] wärest du wohl nicht [so] rasch erloschen”. My translation is only tentative: the precise meaning of *sneuki*, which I rendered as ‘need’ is unknown, and I stretched the meaning of *ynāñmā* from ‘desired, appreciated’ to ‘want’.

⁵⁵³ Verse: metre 4 x 4 | 4 | 4.

⁵⁵⁴ So transliterated by Sieg and Siegling (1953); in fact, a slight rest of the arc of the <u> can be seen, too.

⁵⁵⁵ The lacuna certainly contains a metaphor, probably something like *udumbarṣṣai pyäppyaīsa* ‘with the [rare] udumbara flower’; although, admittedly, this expression is common only in Tocharian A.

māka sne_ukī | mā pi rā(me)r⁵⁵⁶ | kselle šaitā 3o
 great need not PCL quickly extinguish:SBJ.GER be:3SG.IPF
 ‘If another omniscient [Buddha] had arisen within hundred years, then there [would have been] great need and want because if there [had been] great need comparable to [the rareness of] the (udumbara)-flower, then you would not have been extinguished [so] quickly, would you?’

As Thomas points out (1952: 46), the subjunctive gerund with imperfect copula is used in relative clauses to main clauses with negation, i.e. the item negated in the main clause is further described in the relative clause. Of course, this usage also fits the counterfactual meaning very well. Note, however, that it is only counterfactual within the scope of the main clause, i.e. the truth of the latter must be accepted; the event in the relative clause itself need not be impossible.

B375a3

(mā)⁵⁵⁷ no nta māskitār-ne ekaññe • k_ucesa su
 not but ever be:3SG.IPF-3SG.SUFF possession which:PERL DEM
āyorś milykaucce yarpo • kraupalle šey
 giving:ALL based.on merit gather:SBJ.GER be:3SG.IPF
 ‘However, he had no possessions by which he might have accrued merit based on gift.’⁵⁵⁸

In the following example, we see very clearly that the counterfactual reading depends on the main clause: king Araṇemi has in fact come in great misery, only it cannot have been brought about by a human being.⁵⁵⁹ If the construction is the same as in the preceding example, what it seems to be, the tense of the subclause is the same whereas that of the main clause is different, which could be taken as an argument that Tocharian has relative, not absolute tense (see footnote 11).

NS36+20b3, B93b6, IT69a5

mā sū ksa nesām ce šaiṣṣene⁵⁶⁰ k_use ñiś maiyyasa
 not DEM INDF be:3SG.PRS DEM world:LOC who I power:PERL

⁵⁵⁶ So to be corrected for *rār* in the manuscript

⁵⁵⁷ It is unfortunate that the crucial word *mā* ‘not’ is restored, but the context of this passage is well known and the restoration is without doubt correct.

⁵⁵⁸ Krause and Thomas (1960: 192), Adams (1999: 463).

⁵⁵⁹ NS36+20b4 (IT69a6) – – – – *tā kentsa k_use ñi tañcī cimpamñe* : could present a counter-example, if the first four syllables of the line are to be restored as *mā ksa nesām* (Schmidt 2001: 324) ‘(there is nobody) on earth who could stop my power’. However, with Couvreur (1964: 247), it could also be a question: ‘will there be somebody on earth who could stop my power?’.

⁵⁶⁰ *ce šaiṣṣene* lacks in NS36+20.

cämpalle *šai* *ce*⁵⁶¹ *erkatñene* *kalatsi*
 can:GER be:3SG.IPF DEM misery bring:INF

‘There is no one in this world who could have brought me in this misfortune by his power.’⁵⁶²

However, in the example below, the same construction cannot be counterfactual, since the porridge has not yet been eaten by somebody else: it is still there and it is not impossible to eat it (the same speaker even asks to eat it in the following, as if he thinks he can really get it).⁵⁶³ Since this example – the only one in an independent main clause – is not counterfactual, counterfactuality cannot belong to the basic meaning of the construction.

B107a3

akālk *tsānkā-ne* *mākte* *pi* *kca* *tā* *oñkorñai* *ñis*
 wish arise:3SG.PRT-3SG.SUFF how PCL INDF DEM porridge I
šwātsi *källālle* *šeym*
 eat:INF obtain:SBJ.GER be:1SG.IPF

‘Then there arose to him the wish: «How could I in any way get to eat this porridge?»’⁵⁶⁴

Although it is tiny basis indeed, I have to assume on the basis of the last example that the probability expressed by this construction is very low, but it does not have counterfactuality as its core meaning.

3.7.2 SUBJUNCTIVE GERUND WITH PRESENT COPULA

The combination of a subjunctive gerund with a present copula, or the subjunctive gerund as predicate without copula, as in nominal clauses, always has future reference. Accordingly, it is called “das periphrastische Futur” by Thomas (1952: 38-39). He remarks (1952: 39) that this construction seems to occur only in main clauses,

⁵⁶¹ B93 has *cem*.

⁵⁶² Couvreur (1964: 246; Schmidt 2001: 325). Pinault (2009: 227) offers a different interpretation, taking the preceding *akañc śconiye* as syntactically connected: “Finally, there is not any enmity that could lead me in such a state of anger.” I do not think that *akañc śconiye* is to be taken with this sentence: the construction is difficult to understand and *śconiye* ‘hatred, enmity’ is probably feminine, which excludes it being taken up with masculine *su* (it follows a lacuna and could belong to a preceding sentence). However, if Pinault’s translation of *erkatñe* with ‘anger’ is correct, this changes the interpretation of the whole construction because it is likely indeed that king Arañemi feels no anger, whereas he has in fact experienced great misfortune (still, one may compare e.g. B89a3 in 3.7.5, p 288, where ‘anger’ is not very plausible).

⁵⁶³ This was suggested to me by Prof G.-J. Pinault in February 2009.

⁵⁶⁴ Cf Gnoli (1977: 109, l. 25-26) *yannv aham etat prārthayeyam* ‘that now would I desire.’

whereas Kraus and Thomas (1960: 191) claim that it is almost exclusively found with negation.

Despite some exceptions, both observations have certainly uncovered two important tendencies. However, Thomas' suggestion (1952: 39) that the "periphrastic future", unlike the regular future expressed by the simple finite subjunctive, is used to emphasise or highlight a future event is unverifiable. If the simple subjunctive and the subjunctive gerund with present copula are different, this difference is probably rather that the latter stresses the possibility, or in negated clauses, the impossibility of the event. Of course, this is in line with the possibility meaning Thomas established for the subjunctive gerund in other syntactic contexts.

B85b6

wesāñ ñake şarnene kekamu nest mā ş pātrā
our now hand:LOC.DU come:PRT.PTC be:2SG.PRS not and father

(lkā)lle nest

see:GER be:2SG.PRS

'You have come into our hands and you can/ will not see your father [any-more].'⁵⁶⁵

B107b5-6

comtsa şpālmem dakṣi[ḷb6]ñākem mā kālālyana nescer
DEM:PERL excellent worthy.of.gifts not obtain:SBJ.GER be:2PL.PRS

cwim nai tāñ oñkorñai kalas
DEM:GEN PCL DEM porridge bring:IPV.PL

'You can/ will not find anyone better and worthier of gifts than him there; bring him the porridge!'⁵⁶⁶

THT1554b3

mā ş lalaşcer mā yes cimpalyi neşcer
not and make.effort:2PL.PRS not you:PL can:GER be:2PL

'And you do not make effort, [and] you will not be able.'

However, with first persons, there are quite a number of examples where it seems that the event is intended by the speaker (so mostly negated, i.e. *not* intended):

⁵⁶⁵ Cf Couvreur (1954b: 102, see also Schmidt 2001: 315); cf the parallel B86a4 /// (*wesāñ ñake*) *mañiye nes mā şp pātār lkālle nes* 'you are now our servant and you can/ will not see your father [anymore]'.
⁵⁶⁶ The crucial expression lacks in Gnoli's parallel (1977: 110, l. 7-8) *eşo 'smadvişīṣṭatamaḥ ; asmāy anuprayacchatam* 'He is better than us; offer it to him!'.

B23b5-6⁵⁶⁷

ñäs mā yesañne | wase yokalle rekaunašše : [23d]
 I not you:PL.ADJ poison drink:GER word:PL.ADJ
mā tañ kč̣ āyor aille nesau | ṃ̌ ālyeke_[b6]pi ten
 not you:GEN INDF gift give:SBJ.GER be:1SG.PRS not other:GEN DEM
nai pkārša | päst paš ñy ostameṃ 23
 PCL know:IPV.SG away go:IPV.SG I:GEN house:ABL

‘I won’t drink the poison of your words; neither you nor anyone else will I give a gift. Know this! Go away from my house!’

B10ob2

mā ñis pratinmeṃ klyautkalyñe⁵⁶⁸ nesau
 not I resolution turn.away:SBJ.GER? be:1SG.PRS
 ‘I can/ will not be put off my resolution.’

AS12Hb4-5⁵⁶⁹

rāmer wākoīprerntse⁵⁷⁰ | ante kānte pākentāsā [1c]
 soon burst:3SG.OPT≠sky:GEN surface hundred part:PERL.PL
(mā⁵⁷¹) [b5] nāno ñäs ostāššai | wšeññaine
 not again I house:ADJ dwelling:LOC
nesewšille⁵⁷² ntā 1 ||
 be:1SG.PRS≠dwell:SBJ.GER ever

‘Sooner may the surface of the sky burst into a hundred pieces! I will never live in a housy place again!’⁵⁷³

B107b10

mā tot ñis pintwāt warpalle nesau kossa
 not so.long I alms receive:SBJ.GER be:1SG.PRS as.long.as

⁵⁶⁷ Verse: metre 4 x 5 | 8 (5 | 5+3) + 8 | 8 | 5 (4+4 | 4+4 | 5).

⁵⁶⁸ For *klyautkalle*.

⁵⁶⁹ Verse: metre 4 x 7 | 8; apparently predominantly 4+3 | 3+5, but 4+3 | 4+4 in pāda 1c.

⁵⁷⁰ For *wākoī prerntse*.

⁵⁷¹ Thomas’ *mā* (1952: 40) is to be preferred to Pinault’s *kr_ui* (2000: 151) since all other instances of this construction are found in main clauses. As far as the context is concerned, one could be tempted to interpret ‘Sooner may the surface of the sky burst into a hundred pieces *than that* I will ever live in a housy place again!’. However, I know of no parallel for such a construction (none is mentioned by Thomas 1958b); consequently, it is unclear whether that interpretation would require e.g. a conjunction *k_uce* instead of the negation *mā*.

⁵⁷² For *nesew šille*.

⁵⁷³ For the translation, cf Couvreur (1953b: 282).

wāsaṃ kleśanma mā wikāskau
 false.conception kleśa:PL not drive.off:1SG.PRS.~SBJ
 'I will not receive alms as long as I do not drive off false conception and kleśas.'⁵⁷⁴

The following example is the reaction of Ulkamukha on his father's sending him and his three brothers away (Rockhill 1884: 11). The problem with this example is that it is damaged to the right, so that we cannot be certain whether all is to be taken together with heavy inversion indeed (instead of *wes ṣaṇ śaul mā āppantse rilyi*). Cf with different syntactic units "Das eigene Leben werden wir aufgeben, nicht (den Befehl (?)) des Vaters ..." (Thomas 1952: 40).

B589b4

rilyi wes ṣaṇ śaul mā āppantse [b₅]
 abandon:SBJ.GER we REFL life not dear.father:GEN
 'We, his own life, cannot be abandoned by [our] dear father!'

3.7.3 SUBJUNCTIVE GERUND WITH SUBJUNCTIVE COPULA

Thomas (1952: 41) claims that the combination of subjunctive gerund with subjunctive copula is parallel to the subjunctive gerund with present copula: while the latter is an "emphatic future", the former is an emphatic variant of the subjunctive in "konjunktivischem Sinn". In the *Elementarbuch*, the description is quite different, as they claim that the construction usually serves to denote possibility in conditional clauses (Krause and Thomas 1960: 191). Of course, the second characterisation has the advantage that it fits well with the meaning of the subjunctive gerund elsewhere, and that it is much clearer than the first, but the problem is that there is only one good example:

B107b1-2

cisa [b₂] *kreṃnt kālālyana tākam cwi aiskem ci eṃṣke*
 you:PERL good obtain:SBJ.GER be:1PL.SBJ DEM:GEN give:1PL.PRS you while
tārkanam
 let.go:1PL.PRS
 'If we can find somebody better than you, we will give it to him while we leave you [alone].'⁵⁷⁵

⁵⁷⁴ Cf Thomas: "Solange werde ich [überhaupt] nicht mehr Almosen genießen, bis ich nicht *vāsanā* [und] *kleśas* vernichte" (1952: 39).

⁵⁷⁵ This construction lacks in Gnoli (1977: 110, l. 2) *yas tavāntikāt prativīṣiṣṭatamaḥ* '[We offer it to him] who is better than you'.

The other two Tocharian B examples Thomas cites contain the verb *cāmp-* ‘can’, so that it is difficult to show a possibility meaning of the construction:⁵⁷⁶

B100a1-2

kr_{ui} no tu ri(ṃ)tsi campalle tākat ta_[a2] ///⁵⁷⁷ (klyau)ṣtsi
 if but DEM give.up:INF can:PRS/SBJ.GER be:2SG.SBJ hear:INF
ayu-c
 give:1SG.SBJ-2SG.SUFF

‘If you are able to give this up, ... I will give you (the law) to hear.’

3.7.4 PRETERITE PARTICIPLE WITH SUBJUNCTIVE COPULA

The preterite participle can be combined with the copula, in both main and subclauses. Thomas studied combinations of the preterite participle with present, imperfect and preterite copulas, but, probably because they are really no past tenses, he left out subjunctive and optative copulas. According to the *Elementarbuch*, the latter two are completely parallel to the other combinations: “Die Kopula tritt in den Konjunktiv oder Optativ, wo auch bei synthetischen Verbalformen diese Modi erforderlichlich sind” (Krause and Thomas 1960: 191). To check this, we need to know how the preterite participle is used with present and past copulas.

Whereas the preterite denotes an event in the past that may still hold in the present, the preterite participle with present copula really focuses on the present result of a past event. The preterite participle with imperfect copula is mostly used in subclauses to express a situation prior to the event in the main clause. The preterite copula is only rarely found combined with the preterite participle; according to Thomas (1957: 287), it expresses a “Konstatierung”, an observation.⁵⁷⁸

If we transpose this to the subjunctive, we would expect that the preterite participle with a subjunctive copula denotes future situations, or future results of (future?) events in main clauses, and uncertain or (partly) unknown situations in subclauses.

As it turns out, all clear examples of this construction are found in subclauses, and of different types: conditional, concessive, eventual. The conditionals all have a present in the apodosis and they are non-predictive, i.e. they do not denote possible

⁵⁷⁶ For some examples from Tocharian A that are a bit clearer, but which I do not want to use here, cf 3.4.3 (p 219).

⁵⁷⁷ After Thomas (1983: 252), the object is perhaps to be restored as *pañāktāññe* (in this manuscript apparently *pañāktāññe*, cf a4) *ślok* ‘Buddha-strophe’, i.e. ‘to give a Buddha-strophe to hear’.

⁵⁷⁸ The key passage may be B22a5-6 *tañ (mai)yyane ñiś sanaṃ au(n)u takāwa* ‘In your power I have hit the enemy’. Since it is strange to observe one’s own action, this could be taken to mean that the observation concerns *tañ maiyyane* ‘in your power’, i.e. ‘It is apparently in your power that I have hit the enemy’.

future events, but they always give information about the present as possible or uncertain.

B492a1-4

šilarakite āryawarmem tsamo yšuwarsa prekšām sessatatte rine
Šilarakṣita Āryavarman very friendly ask:3SG.PRS Śeṣadatta town:LOC
me_[a2]skeṣṣem cānem aiṣlyi tākaṃ parso ette paiyka
joint:ADJ coin:PL give:PRS.GER be:3SG.SBJ letter down write:IPV.SG
śka plāwa sessatatem yaka_[a3] lypaṣ tākaṃ mā
hither send:IPV.SG Śeṣadatta still send:PRT.PTC be:3SG.SBJ not
plaṅkšām meski šito⁵⁷⁹ űi stare parso lywāwa-ś
sell:3SG.PRS joint:PL price I:GEN be:3PL.PRS letter send:1SG.PRT-2SG.SUFF
plāś aškā_[a4]r mā lywāsta
speech back not send:2SG.PRT
 ‘Šilarakṣita asks Āryavarman very friendly: Śeṣadatta has to give the coin strings⁵⁸⁰ in town. If [you have] the letter, sign it and send it [to me]! If Śeṣadatta has sent them nevertheless, he should not sell them: the strings are my price. I have sent you a letter, [but] you haven’t sent an answer.’⁵⁸¹

The following example is from the Karmavibhaṅga, where this construction is frequently found.

AS7Ba3-4⁵⁸²

śuk pel(ai)knenta | ompte cmellāññe spārttaskem : [77b]
seven law:PL there birth turn:3PL.SBJ

⁵⁷⁹ Probably to be corrected to *pito*.

⁵⁸⁰ The correct interpretation of *meski* (and the adj. *meskeṣṣem*) is certainly that given by (Pinault 2008: 377-378), after a lecture by Ching Chao-jung: calque on Chin. *guàn qián* 貫錢 ‘string of 1,000 coins’. I would rather expect *caneṣṣem meskem* ‘strings of coins’, but probably we have to interpret ‘coins in strings’.

⁵⁸¹ Pinault (2008: 380) translates this passage as: “Šilarakṣita demande très aimablement à Āryavarman: Śeṣadatta, en ville, devra donner les pièces des ligatures. Il a signé une lettre. Sollicite Śeṣadatta, qu’elles (scil. les pièces) doivent encore être envoyées. Ce n’est pas lui qui vend. Les ligatures sont le prix qui me revient. Je t’ai envoyé une lettre; tu n’as pas envoyé de réponse en retour.” Although he has improved the interpretation in several crucial points (certainly compared to Peyrot 2008a: 151), his translation still copes with some difficulties: *aiṣlyi tākaṃ* can hardly be “devra donner”; to translate *śka plāwa* as “sollicite” is rather far away from the well-established basic meaning of the verb *lawa-* ‘send’; I have found no parallels for a rendering of *lypaṣ tākaṃ* as “doivent être envoyées”; finally, it is strange not to have any mark of contrast (i.e. for instance a pronoun) in *mā plaṅkšām* if it should mean “ce n’est pas lui qui vend [but me instead]”.

⁵⁸² Verse: metre 4 x 5 | 8 (5 | 5+3).

ompalskoññenta | *nesäm* *şukt* *şpālmeṃ* *wrotsana* : [77c]
 meditation:PL be:3SG.PRS seven excellent great
tū *yairu* *tākam* | *sū* *ceṃ* *ñakteṃne* *tänmasträ* 77
 DEM practise:PRT.PTC be:3GS.SBJ DEM DEM god:LOC.PL be.born:3SG.PRS
 ‘If seven laws lead [determine?] the birth there – these are the seven great and
 excellent meditations – if he has practised that, he will be born among these gods
 (scil. without form).’

The following is a (rare) example of concessive usage:

AS7Cb2-3⁵⁸³

empelona *ra* | *yāmwa* *tākam* *yāmornta* : [17a]
 horrible also do:PRT.PTC be:3PL.SBJ deed:PL
āñm *n(ā)kālñesa* | *nuttsāna* *pest* *klautkontrā* : [17b]
 self reproach:PERL nugatory?⁵⁸⁴ away turn:3PL.PRS
pākri *yāmorsa* | *wlāwalñesa* *tumeṃ* *şpä* : [17c]
 manifest do:ABS control:PERL because.of.that and
eṃşketse *witskai* | *rassalñe* *tuntse* *weskau* 17
 within root tearing.out DEM:GEN say:1SG.PRS
 ‘Even if horrible deeds are done, by self reproach they become nugatory (?),
 [and] by making [them] public and by [self] control; and because of this I tell
 [about] tearing it out, the root inclusive.’⁵⁸⁵

The example below is not easily analysed as a conditional, so that we probably have to categorise *yāmu tākam* as eventual; *cmetār*, on the other hand, seems to give an extra condition.

AS7Cb3⁵⁸⁶

se(ṃ) *t(e)-yäknesa* | *yāmor* *yāmu* *ket* *tākam* : [18a]
 DEM such deed do:PRT.PTC who:GEN be:3SG.SBJ
cmetār *ra* *nraiṃne* | *ramer* *no* *pestä* *tsälpeträ* : [18b]
 be.born:3SG.SBJ also hell:LOC quickly but away be.freed:3SG.PRS
 ‘By whom such a deed may be done, even if he is reborn in hell he is redeemed
 soon.’⁵⁸⁷

⁵⁸³ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁵⁸⁴ Adams (1999: 341).

⁵⁸⁵ For text and translation, cf Pinault (2007: 210–211).

⁵⁸⁶ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁵⁸⁷ For text and translation, cf Pinault (2007: 210–211).

The only example where the construction seems to occur in a main clause is the following.

AS12Hb3-4⁵⁸⁸

klainamp / *eṣe* *wīnasā* | *lāmālñe* *ñi* *ak(essu)* [b₄] *se* [1a]
 woman:COM.PL together pleasure:PERL staying I:GEN final DEM
sāk *ñi* *wṣeñña* *ostāṣṣa* | *postāña* *tākaṃ* *auṣusā* [1b]
 DEM/EMPH I:GEN place house:ADJ later be:3SG.SBJ live:PRT.PTC
 ‘Staying in pleasure together with women, that has come to an end for me: this is
 the last housy place that I will have lived in!’⁵⁸⁹

It is very difficult to take this clause as a conditional: either it would have to construed with the following (cf 3.7.2, p 279) ‘if this is the last housy place that I have lived in, than the surface of the sky may quickly burst into a hundred pieces’, or with the preceding ‘Staying in pleasure together with women has come to an end for me if this is the last housy place that I have lived in.’ The first is certainly wrong because the Buddha wants to leave the palace and its harem himself, and the second is true, but does not seem coherent in the context: as the Buddha is leaving the palace, it seems to make no sense to talk about it in conditionals.

Unlike the construction with a preterite participle and a subjunctive copula, the construction with an optative copula does not seem to be a real Tocharian category. The only example Krause and Thomas give (1960: 191) is from the same text where a “calque usage” of the optative has been observed (cf 3.6.13, p 272):

IT248b5-6

ṣamāni *no* *masār* *ostuwaiwentane* *kakākaṣ* *tākoṃ*
 monk:PL but on.the.way? dwelling:LOC.PL call:PRT.PTC be:3PL.OPT
śwātsiśco • *omte* *kr_ui* *aśiya* *śār(ps)emaneñña* *stmausa*
 eat:INF.ALL there if nun point.out:PRS.PTC stand:PRT.PTC
tākoy • *tane* *klu* *pete* • *tane* *smaññe* *pete* • *tane*
 be:3SG.OPT here rice give:IPV.SG here soup give:IPV.SG here
(ṣpa)k *pete* • *sāw* *a(śiya)* *ṣamānent(s)* *māntrākka* *tākoy e* –
 more give:IPV.SG DEM nun monk:GEN.PL thus be:3SG.OPT
 ‘If monks were invited into dwellings to eat on the way [?], and a nun were
 standing there giving instructions, «Give rice here!», «Give soup here!», «Give
 more here!», [then] this nun should be [addressed] by the monks like this ...’

Compare the Sanskrit version of pratideśanīya 2: *bhikṣavaḥ punaḥ sambahulāḥ kuleṣūpanimantritā bhūṃjīraṃs tatra ced bhikṣuṇī vyapadiśamānā sthitā syād*

⁵⁸⁸ Verse: metre 4 x 7 | 8 (4+3 | 3+5; sometimes also 4+3 | 4+4).

⁵⁸⁹ For the translation, cf Couvreur (1953b: 282).

ihaudanaṃ dehi iha sūpaṃ dehi iha bhūyo dehīti sā bhikṣuṇī bhikṣubhir evaṃ syād “Angenommen, eine Anzahl Mönche, die bei den vornehmen Familien eingeladen sind, sind beim Essen. Wenn dann eine Nonne dasteht und Anweisungen gibt: “Gib hier Reisbrei, gib hier Soße, gib hier mehr!”, dann sollen die Mönche zu dieser Nonne sagen ...” (von Simson 2000: 236-237, 302). The Tocharian is very literally translated from the Sanskrit, the correspondences being *upanīmantrītā* (ptc.) ~ *kakākaṣ tākoṃ* (ptc. + opt.), *sthitā syād* (ptc. + opt.) ~ *stmausa tākoy* (ptc. + opt.), *evaṃ syād* (‘so’ + opt.) ~ *māntrākka tākoy* (‘so’ + opt.). Since the verb constructions are clearly calqued, we can dismiss this example of a preterite participle with optative copula; in the first correspondence, the Tocharian optative *tākoṃ* was probably added against the Sanskrit to make the syntax clearer, but following the pattern of the other optatives.⁵⁹⁰

3.7.5 WITH ADVERBIALS AND PARTICLES

Tocharian B disposes of a large set of adverbs and particles that are at home in direct speech and structure the discourse. As this study is primarily concerned with the subjunctive, I cannot address the problem of these particles in full here,⁵⁹¹ but some remarks are necessary as they are sometimes used together with the subjunctive to give deontic readings that are otherwise rare or absent. The particles discussed are *nai* ‘isn’t it?’ (p 288), *mai* ‘perhaps’ (p 294), *pi* ‘please’ (p 297), *mapi* ‘isn’t it?’ (p 300), *wa* ‘still’ (p 303), *rai* ‘o!’ (p 306), and *arai* ‘hey!’ (p 307).

The Tocharian B particles may be used combined, as for instance in Dutch, which makes it even more difficult to assess the meaning.⁵⁹² Here I will only cite some of the strings that I have found without attempting to render the nuances they must express: *ente nai ṇake* THT1552a.b7, THT1552a.b8, *ate nai kca ṇke* IT464b2, */// w nai kca ṇke* B238a3, *kuse nai ṇk(e) p(i)* B93b1.

Further, some conjunctions and adverbials relevant to the study of conditionals are discussed: *ṇke* ‘now’ (p 308), *ot* ‘then’ (p 310), *ente* ‘where’ (p 312), and *krui* ‘if’ (p 314).

Although it is usually corrected to *tane* ‘here’, a word *ta* probably exists, as argued by Ching and Ogihara (forth.; this was pointed out to me by Prof G.-J.

⁵⁹⁰ Although it is not especially our concern here, the strange feminine present participle *ṣār(ps)emanēṇā* is clearly calqued on Skt. *vyapadīśamānā*, which further proves the artificial character of the translation.

⁵⁹¹ In my view, it deserves a thorough investigation like for instance a PhD thesis.

⁵⁹² For Dutch, one example has become classical (Haeseryn e.a. 1997: 457):

<i>Geef</i>	<i>die</i>	<i>boeken</i>	<i>dan</i>	<i>nou</i>	<i>toch</i>	<i>maar</i>	<i>eens</i>	<i>even</i>	<i>hier.</i>
give:IPV	DEM	book:PL	PCL	PCL	PCL	PCL	PCL	PCL	here
‘Just hand over those books, will you?’									

Although this sentence is more or less grammatical, it is nearly impossible to indicate the semantic nuances of all of the particles in this combination.

Pinault). In B100a4, it seems to introduce the apodosis of a conditional, but the other attestations (a.o. THT1115b3) suggest a more neutral ‘this; here; now’: apart from THT4001a5, Ching and Ogihara further adduce NS152b3, THT1112b2 and THT1374z.b3. As the number of attestations is limited and there does not seem to be a special link to conditionals or modality, I will not discuss *ta* any further.

nai ‘isn’t it?’

In the majority of its attestations, the particle *nai* combines with an imperative. It clearly strengthens the imperative without making it less polite. It certainly does not make the imperative more polite either: we find clear and impolite commands, next to friendly suggestions. It is often found at the beginning of a quote, or at the beginning of the part where the command or suggestion is found. It thus introduces and underlines an imperative. It is mostly found before the imperative verb form, and always in the same syntactic unit; it is not found, for instance, modifying a vocative.

If it is not used with an imperative, *nai* seems to express an element of doubt or an assumption. In all examples, the speakers seeks to coordinate what he says with the hearer: the questions are not completely open, but invite a reaction of the hearer, and in non-interrogative statements the speakers shares his uncertainty with the hearer.

The following examples with imperatives are clearly friendly suggestions, since they contain positive vocatives:

AS171a3⁵⁹³

<i>yetwe</i>	<i>po</i>	<i>cmeltse</i>	<i>palkas-ne</i>	<i>nai</i>	<i>tānwaṃṇai :</i>
ornament	all	birth:GEN	see:IPV.PL-3SG.SUFF	NAI	love:VOC

‘Look at the ornament of all rebirth, o love!’

B88a4-5

<i>lari(ya</i>	<i>pā)lka</i>	<i>nai</i>	<i>mā-ṣekaṃṇe</i> [a5]	<i>wāntarwats</i>	<i>sparkālye</i>
dear	see:IPV.SG	NAI	impermanence	thing:GEN.PL	disappearance

ā(ke)
end
‘O dear!, look at the impermanence of the things [and their] ultimate disappearance⁵⁹⁴!’⁵⁹⁵

In two answers to Nandā and Nandabalā’s question to whom they should give the porridge, *nai* seems to go together with good counsel.⁵⁹⁶

⁵⁹³ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁵⁹⁴ Literally: ‘disappearing end’.

⁵⁹⁵ Cf Couvreur (1954b: 102; see also Schmidt 2001: 317).

B107a10

cwim nai kalas
 DEM:GEN NAI bring:IPV.PL
 ‘Bring it to him over there!’

B107b6

cwim nai tāṃ oñkorñai kalas
 DEM:GEN NAI DEM porridge bring:IPV.PL
 ‘Bring that porridge to him over there!’

The following two examples are from the same leaf and probably concern requests (although a command is also possible): king Prasenajit asks for a demonstration of two types of miracles during a competition in magic between the Buddha and the heretics (*tīrthyas*).

IT178b3

/// (tī)rthemś weṣṣām • se pañāktentse raddhi • ñake nai
 tīrthya:ALL.PL say:3SG.PRS DEM Buddha:GEN ṛddhi now NAI
 yes (p)ā(k)r(i) pyāmtsāt
 you:PL manifest do:IPV.PL
 ‘(King Prasenajit) says to the *tīrthyas*: «This is a *ṛddhi* (miracle) of the Buddha. Now you show [one]!»⁵⁹⁷

IT178b5

/// w(a)lo weṣṣām • se pañāktentse pratihari • pyāmtso nai
 king say:3SG.PRS DEM Buddha:GEN prātihārya do:IPV.PL NAI
 yes •
 you:PL

⁵⁹⁶ Pinault (2008: 157, §19 and 158, §28 translates systematically “donc”, but Schmidt (2008: 332, 333) translates the first with “doch” and the second with “nur” without explaining the difference. The relevant detail lacks, as so often, in the Gilgit parallel, where we find just *anuprayacchatam* ‘offer!’ (Gnoli 1977: 109, line 36; 110, line 8).

⁵⁹⁷ A nice match is offered by the Prātihāryasūtra of the Divyāvadāna, *vidarśitaṃ bhagavatottare manuṣyadharme riddhiprātihāryaṃ yūyam api vidarśayata*, which occurs four times with only very slight differences, cf Burnouf (1844: 177-178), “Voilà Bhagavat qui vient d’opérer un miracle supérieur à ce que l’homme peut faire; opérez-en donc un aussi à votre tour.” (p 177; cf also Rotman 2008: 272-273, “You should display one as well.”). The difference between *vidarśayata* (Cowell and Neil 1886: 157) in the first two attestations and *nidarśayata* (p 157-158) in the second two is not reflected in these two Tocharian B sentences. On the other hand, there is no basis in the Sanskrit for the Tocharian difference between the *ṛddhi* and the *prātihārya* miracle.

‘King (Prasenajit) says: «This is a *prātihārya* (miracle) of the Buddha. Now you make [one]!»’

The following example certainly is a command, as the word *yaitkor* ‘command’ itself is used:

B81a5

brāhmane weṣṣāṃ (tusā)ksa nai yes nī yaitkorsa
 brahmin say:3SG.PRS therefore NAI you:PL I:GEN command:PERL
pcīso
 go:IPV.PL

‘The brahmin says: «Therefore get going according to my command!»⁵⁹⁸

The following example is clearly not polite, nor can *nai* have a softening value:

B23b5-6⁵⁹⁹

mā tañ kc̣ āyor aille nesau | ṃ ālyeke_[b6]pi ten nai
 not you:GEN INDF gift give:SBJ.GER be:1SG.PRS not other:GEN DEM NAI
pkārsa | pāst paṣ ñy ostameṃ 23
 know:IPV.SG away go:IPV.SG I:GEN house:ABL

‘Neither you nor anyone else will I give a gift. Know this! Go away from my house!’

More examples with the imperative can be found in for instance: AS13Ia8, B83a2, B363b3, B368a2, B364b5, IT19b2, IT24a4, IT62b3, IT68b2.

There are two cases with a negated present next to an imperative; since the imperative cannot be negated, this is clearly a prohibitive.

B107b1⁶⁰⁰

purwar ce pinwāt | mā nai ñakta prāṅkās-me : [c]
 receive:IPV.SG DEM alms not NAI god:VOC reject:2SG.PRS/SBJ-PL.SUFF
 ‘Accept these alms [and] do not reject us, god!’⁶⁰¹

B78a2

mā ṣ nai ñake āyorsa plāc aksast
 not and NAI now giving:PERL speech tell:2SG.PRS
 ‘And now don’t utter a word about giving!’⁶⁰²

⁵⁹⁸ Cf Couvreur (1954b: 100, see also Schmidt 2001: 310).

⁵⁹⁹ Verse: 5 pāda metre 4 x 5 | 8 (5 | 5+3) + 1 x 8 | 8 | 5 (4+4 | 4+4 | 5).

⁶⁰⁰ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁶⁰¹ This time Schmidt chooses “doch nur” (2008: 332), cf footnote 596.

The remaining examples worthy of interpretation are much less homogeneous: we find it combined with various tenses and moods. What they seem to have nevertheless in common is an element of doubt that can be paraphrased in different ways: 'I presume', 'isn't it', or 'I think so, do you agree?'. This also accounts for its (relatively) frequent occurrence in questions. However, the element of doubt does not seem to be very strong, compared with for instance *pi* and *mapi*, discussed below.

B46b2⁶⁰³

sklok ket ra nai mā tsānkau ste | kuse tne
 doubt who:GEN also NAI not arise:PRT.PTC be:3SG.PRS who here
cmītrā mā srūko(y 36)
 be.born:3SG.OPT not die:3SG.OPT

'Presumably nobody has got doubts whether who is born here would die.'⁶⁰⁴

Because of the interrogative pronoun *kuse*, the following two examples are certainly questions (we can probably add the more fragmentary AS17Fa2 and B90a5):

B89b5

kuse nai tamp aṇmālaške palwaṃ sāswem̐tse araṇemiñ
 who NAI there pitiful complain:3SG.PRS/SBJ lord:GEN Araṇemi:GEN
lānte ṣpā ñem śausām
 king:GEN and name call:3SG.PRS
 'Who might be wailing so pitifully, calling the name of the lord, king Araṇemi?'⁶⁰⁵

B93b1

kuse nai ñik(e) ṣ(ai)⁶⁰⁶ su | aknā(tsa śaumo :) [1c]
 who NAI then be:3SG.IPF DEM foolish man
 'Who was this foolish person?'⁶⁰⁷

In one passage from the Udānālankāra, Sieg and Siegling (1949: II, 49) corrected *wat nai* of the transliteration (1949: I, 50) into *wa nnai*, but it seems that a translation

⁶⁰² Schmidt (2001: 308).

⁶⁰³ Verse: metre a: 5 | 5 | 5 | 5, b: 8 | 7 | 7 (4+4 | 4+3 | 4+3), c: 5 | 5, d: 8 | 7 (4+4 | 4+3) or 7 | 8 (4+3 | 3+5).

⁶⁰⁴ Literally: 'Not to anybody has arisen the doubt *nai* [that] who might be born here would not die.'

⁶⁰⁵ Cf Schmidt (2001: 319).

⁶⁰⁶ So read by Couvreur (1964: 242) after the Paris parallel NS36+20 (*kus*) *e nai ñike ṣai* ///; the editors give *p(i)* (Sieg and Siegling 1953: 31). Unfortunately, the manuscript is missing and the reading cannot be verified.

⁶⁰⁷ Verse: metre a: 5 | 5 | 5 | 5, b: 8 | 7 | 7 (4+4 | 4+3 | 4+3), c: 5 | 5, d: 8 | 7 (4+4 | 4+3).

with *wat nai* is possible at least: the monks are in doubt about the sorrows in the world and fear that there is no way to make them disappear.

B30a1-2⁶⁰⁸

mā wat nai [_{a2}] *sā_u tne nesām* | *ytārye ksa lakle*
 not or NAI DEM here be:3SG.PRS way INDF sorrow
nautṣṣeñca : 22
 make.disappear:AG.N
 ‘Or isn’t there any way here that makes sorrow disappear?’⁶⁰⁹

In one example we find the beginning of a clause with *nai* preceded by the words *mā aikemar* ‘I don’t know’, which seem to point to uncertainty, too:

B52ob7

tane imāne weṣṣām (•) *mā aikemar ente nai ṇake* ///
 here IMĀNE say:3SG.PRS not know:1SG.PRS/SBJ where NAI now
 ‘Here the *imāne* says: «I don’t know where (the prince is) now ...»’⁶¹⁰

In the following example we do not have a clear question, but the speaker, Sumanā, makes an assumption about the state of mind of the hearer, Priyaratī, which cannot, of course, be done with certainty.

AS17Ia5⁶¹¹

palsko pluṣaṇ-c nai | *katkauñaisa śuketstse* : [1a]
 mind float:3SG.PRS-2SG.SUFF NAI joy:PERL taste:ADJ
 ‘Your mind, full of savour, must float out of joy!’

Without much context is the following example, but it is very likely that somebody thinking the wrong way is portrayed, and that it represents the content of his thought (i.e., with a wrong assumption).

⁶⁰⁸ Verse: metre 4 x 7 | 8 (4+3 | 3+5) or 8 | 7.

⁶⁰⁹ Sieg and Siegling (l.c.): “Es gibt ja hier noch keinen Weg, der das Leid schwinden macht.”

⁶¹⁰ The same string of words is found in the next line: B52ob8 *tumem purohite p(r)e(kṣa)n-ne ·o-e – pala ente nai ṇake māñc(uṣke)* /// ‘then the purohita asks him: «... where [is] the prince now?»’. Unfortunately, Sieg and Siegling’s restoration (p)o(ks)e(ñ) for ·o-e – (1953: 323) is impossible; in any case, we would be left with an enigmatic *pala*.

⁶¹¹ Verse: metre 4 x 5 | 7 (5 | 4+3).

B278b1-2⁶¹²

(*kete palsko⁶¹³ ne*)_[b2]*mcek nai | tremaṣṣana arṣāklaṃts | k_uletär*
 who:GEN thought certainly NAI anger:ADJ snake:GEN.PL fail:3SG.PRS
maiyyo [17a]
 power
 ‘(Who has the thought), «certainly the power of the snakes of anger fails».’

The example below is completely preserved and its content is very clear, but the function of *nai* in pāda 4b is not easy to establish; it cannot have more than a slight “reminding” effect to the hearer as it is lacking in the parallel clauses before and after.

B284a4-6⁶¹⁴

lareṃnmem tsrelle | anaiwaccempa śmälyñe : [4a]
 dear:ABL.PL separate:PRS.GER unpleasant:COM reunion
ritoṣ wändrentse | mā källa_[a5]lle postän nai : [4b]
 bind:PRT.PTC thing:GEN not obtain:SBJ.GER afterwards NAI
yainmwa wāntarwāntsä⁶¹⁵ | nemcek postäm nkelle
 achieve:PRT.PTC thing:GEN.PL certainly afterwards perish:SBJ.GER
ste : [4c]
 be:3SG.PRS
toṃ läklenta tne | cmelants ṣärmtsa mäskenträ_[a6] 4
 DEM:PL sorrow:PL here birth:GEN.PL cause:PERL be:3PL.PRS
 ‘Having to be separated from the dear; reunion with the unpleasant; eventually not being able to obtain a thing [long] cherished; [the fact that] things achieved are certainly to perish afterwards – these sorrows come about here because of the rebirths.’

In one example we find it combined with the optative. The whole sentence clearly is a wish, but this value is of course expressed by the optative itself: we can safely assume that *nai* adds an element of doubt.

B89a3⁶¹⁶

lareñ – i onolmi | lkoycer nai ñi tallärñe | erka(tñe
 dear ... being:PL see:2PL.IPF~OPT NAI I:GEN misery misfortune

⁶¹² Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

⁶¹³ Other restorations are also possible.

⁶¹⁴ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁶¹⁵ According to the metre to be read *wāntarwānts*.

⁶¹⁶ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

ṣpā :) [3a]

and

‘Dear (forest?) beings!, may you see my misery and misfortune!’⁶¹⁷

In view of the values found above, I interpret the following example with a subjunctive also with an element of doubt, i.e. the speaker wishes to coordinate and agree with the hearer.

B77.1

c(ām)p(a)mñeccu tus(ā)ks(a) nai ñak(e) ārw(e)r tākam
mighty:VOC therefore NAI now ready be:1PL.SBJ

‘O mighty one! That is exactly why from now on we will be ready, won’t we?’⁶¹⁸

The frequent occurrence of *nai* in the poem about the land of the *āryamarga* in B553-B556 is without parallels whatsoever. As a special problem of that text, it is not discussed here.

B365b1⁶¹⁹

(pkā)[b1]rsaso (m)ānt nai | ptānmameṃ yārpo | ṣāñ kektseñmeṃ ce
know:IPV.PL so NAI stūpa:ABL.PL merit REFL body:ABL DEM
yārpoṣa | pārlle ste (onolmentsā) [92a]
merit:PERL carry:PRS.GER be:3SG.PRS being:GEN.PL

‘Know [this]: «Thus the people have to get the merit from the stūpas through the merit from their own body»!’

mai ‘perhaps’

The particle *mai* occurs much less frequently than *nai* and it is not attested together with the imperative, but it seems to combine rather with the subjunctive. However, it is also found with the preterite and the optative (each once). Because of the limited number of examples, it is difficult to establish the meaning of *mai*, but it seems to be used predominantly in questions; the attestations that are no obvious questions are nevertheless possible to interpret that way – a possible paraphrasis is ‘by chance’ (cf Adams 1999: 470-471, ‘perchance’).⁶²⁰

Although some examples suggest that *mai* adds to the optative value of wishes, there are very clear counterexamples where the element of wish is certainly absent.

⁶¹⁷ Cf Schmidt (2001: 318). See also footnote 562.

⁶¹⁸ Cf Couvreur (1954b: 99; see also Schmidt 2001: 303: “Hochmögender! Eben deshalb sollten wir doch jetzt bereit sein.”).

⁶¹⁹ Verse: metre 4 x 5 | 5 | 8 | 7 (apparently here 5 | 5 | 4+4 | 3+4).

⁶²⁰ Two attestations in the Araṇemijātaka are not of any use for our purpose: B91a2, B92a3; one may compare Schmidt’s translations (2001: 321, 322).

AS17Ja2-3

kā twe klyomai allek-pälsko taisa mäsketar mai ksa⁶²¹ tane
 why you noble other.mind so be:3SG.PRS MAI INDF here
pälskontse mā ayāto tāka-c⁶²² [a₃] t(e) ñī pokse
 thought:GEN not suitable be:3SG.PRT-2SG.SUFF DEM I:GEN tell:IPV.SG
 ‘Why, o noble one, are you so distracted? Have you had anything that is not
 suitable to your mind? Tell it to me!’

B5a4⁶²³

mai ñī tākaṃ laitalñe | wrocc asānmem lamntuññe : [67c]
 MAI I:GEN be:3SG.SBJ falling great throne:ABL royal
epe wat no šaulantse | ñyātse ñī ste nesalle : 67
 or or but life:GEN danger I:GEN be:3SG.PRS be:PRS/SBJ.GER
 ‘Will I fall down from my great royal seat? Or will there be danger of my life?’⁶²⁴

B28a1⁶²⁵

spelke mai tarkacer | kulātsi cek wārñai ra ñīs | epyac
 zeal MAI let.go:2PL.SBJ fail:INF DEM until and I memory
pkalat · [71b]
 bring:IPV.SG
 ‘Will you let [your] zeal fail? Remember me, this including!’

The following example is usually not interpreted as a question (cf e.g. Schmidt 1974: 304, 501⁶²⁶), but such an interpretation is possible at least.

B255b7⁶²⁷

ce pi šaiṣṣe ālyintrā | ñyātse kwipe rmantär mai [15c]⁶²⁸
 DEM PI world keep.away:3PL.SBJ danger shame bow:3PL.PRS MAI
 ‘Will they ward off this world and not bow for distress and shame?’

⁶²¹ *mai ksa* is also attested in the fragmentary line IT259b3.

⁶²² For *tākā-c*.

⁶²³ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁶²⁴ Preceding: B5a2-4 *walo (rano) [a₃] ce_u preke | šaultsa tāka sklokatstse 66 jetavaṃne pudñākteš | masa yarke ynāñmñesa : [67a] kokalentse kautalñe | preksa poyšim (ot) [a₄] walo : [67b]* ‘At that time the king was in doubt about his life. He went into Jetavana towards the Buddha. With honour and reverence the king then asked the omniscient about the breaking of the car.’

⁶²⁵ Verse: metre 4 x 6 | 6 | 5.

⁶²⁶ “Diese fünf [Mächte] sollen [zwar] die Welt fernhalten, sollen sich aber der Not [und] Scham beugen.”

⁶²⁷ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁶²⁸ Pāda 15d starts with a fragmentary *piś an-*, probably ‘The five *skandhas* ...’.

Although the following strophe misses only the first four syllables of its first pāda 39a, it is difficult to interpret because it contains two hapax legomena: *raka-* and *tappa-*. The first may mean something like ‘spread’ (Krause 1952: 277), even though its stem form is morphologically incompatible with *rək-* ‘cover’.⁶²⁹ *tappa-* is usually given as ‘consume’ (Krause 1952: 246 “verzehren”), but this is clearly based on Tocharian A *tāpā-* ‘eat’ and does not fit the context here (see also 4.7.1, p 454).

B271a1-b1⁶³⁰

(ke)_[a1]ktseñi | rākoyentār-ñ painene | po
 body:PL spread?:3PL.OPT-1SG.SUFF foot:LOC.DU all
 pūdñākteṃts (:) [39a]
 Buddha:GEN.PL
 arañcāṣṣi uppālta |_[a2] pākri tākoñ yke-postām | po
 heart:ADJ lotus:PL manifest be:3PL.OPT-1SG.SUFF bit.by.bit all
 saṃṣārne : [39b]
 saṃsāra:LOC
 tūsa tāppom sai_[a3]m-wāsti | mai no
 therefore appear?3PL.OPT help.and.stay:PL MAI but
 nautañ empelñe | arañcāntse : [39c]
 disappear:3SG.SBJ-1SG.SUFF horror heart:GEN
 se kārteṣṣe saṃva_[b1]r ñ(i) | po saṃsārṣṣeṃ wnołmemmpa | mā
 DEM good:ADJ vow I:GEN all saṃsāra:ADJ being:COM.PL not
 karstoytār 39
 cut.off:3SG.OPT

‘... may ... the bodies ... spread [?] for me at the feet of all Buddhas;⁶³¹ may the lotuses of the heart bit by bit become manifest to me in the whole saṃsāra; may therefore the help and stays appear, so that the horror of my heart disappears; may this vow of the good not be cut off for me and all saṃsāra beings!’⁶³²

IT5a5-6⁶³³

tā ka ṣpā śāmñai kektseñtsa | nraiṣṣi sl(e)mi pannom ñiś |
 DEM just and human body:PERL hell:ADJ flame:PL stretch:3PL.OPT I

⁶²⁹ The meaning of *rārākau* B565a5, which is certainly from the same verb *raka-*, is unknown, so that *raka-* need not have anything to do with ‘cover’.

⁶³⁰ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4).

⁶³¹ Cf Schmidt (1974: 276): “Die ... Körper aller Buddhas möchten sich zu meinen Füßen hinbreiten.”

⁶³² Cf Schmidt (1974: 208): “Diese Heilszucht möge mir samt allen Saṃsāra-Wesen nicht abgeschnitten werden.”

⁶³³ Verse: metre 4 x 7 | 7 | 4 (4+3 | 4+3 | 4); the first unit of pāda 12c is one syllable long and we should probably read *ṣp* for *ṣpā*.

eṃṣky āwiśne : [12c]
 within Avici:LOC
empelona kleśanma [a6] | *mai no pals(k)o soyi pästä* |
 horrible passion:PL MAI but mind satiate:3SG.OPT away
sañāt tākoy 12
 under.control? be:3SG.OPT

‘Would the flames of hell drag me with this human body until the Avici hell? But may my mind be satiated with terrible passions;⁶³⁴ may it be completely under control!’⁶³⁵

B107b1⁶³⁶

purwar ce pinwāt | *mā nai ñakta prañkäs-me* : [c]
 receive:IPV.SG DEM alms not NAI god reject:2SG.PRS/SBJ-PL.SUFF
mai no knetär-me | *ritau akālk laukaññe* : [d]
 MAI but fulfil:3SG.SBJ-PL.SUFF bind:PRT.PTC wish long
 ‘Accept these alms and do not reject us, god – will the wish [we] long cherished be fulfilled?’⁶³⁷

Although there is some overlap with the particle *nai* discussed above, the differences are obvious: *mai* is not focusing in any way on the hearer, but expresses the uncertainty of the speaker about a future event, or, less frequently, a current situation. *mai* has no directive value, i.e. it is not used to influence the actions of the hearer in any direct way.

pi ‘please’

The particle *pi* is used in orders, wishes, and questions. It seems that in all cases, it has a softening function. The orders are mostly addressed to friendly hearers or to hearers the speaker cannot actually command, so that it could be translated with ‘please’ (see also Winter 2001: 136, who claims that it is used as a “politeness particle”). At the same time, it does not seem to weaken the command, it only turns it into a request. Likewise, in wishes with the main verb in the optative, *pi* seems to add to the strength of the wish while the tone remains polite; here, too, the person in

⁶³⁴ I understand: ‘may it have had enough of them; may there be no more’.

⁶³⁵ Cf. Pinault (2008: 328). The beginning of the strophe is IT5a4-5 *onmiṣṣana pwārasa* | *tsāksemane marmanma* | *tronktse stām ra* : [12a] *sālpīñ cittsa wo*[a5]*lokmar* | *nuskaskemar marmanma* | *inkaum kāstwer* : [12b] ‘[While my] vessels are burnt by the fires of remorse, I dwell like an empty tree with glowing spirit, [and] I press my vessels day and night.’

⁶³⁶ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁶³⁷ If the analysis as a question is not accepted, another option is to take the second clause as a final clause, see 3.6.9, p 264).

charge cannot be commanded by the speaker. Finally, its value in questions is the most difficult to assess, but it seems to be used to make the address less direct.

Not counting loosely connected vocatives and interjections, *pi* normally takes the second place of the clause, e.g. *au!* .. *watkaṣṣi pi*, *waṣama!* .. *epiyac pi*, *ñaktemts saswa!* .. *kuse pi*. The same rule is valid for strings of grammatical elements, like *kuse pi ksa*, *mäkte pi kca*.

In the examples with imperative, the friendly and polite vocative addresses are striking (cf also fragmentary AS13Ga5):

B53a2

saswa pstināṣṣar pi mçuṣkant ā ///
 lord make.silent:IPV.SG *PI* prince:PL
 ‘Lord, make the princes keep silent!’

IT4ob1-2

/// (kl)y(o)mai p(ā)lka pi wesāñ larepi sā_[b2](suwerskentse)
 noble:VOC see:IPV.SG *PI* we:GEN dear:GEN little.son:GEN
 ‘... noble one!, look at the ... of our dear little son!’

B77.2

waṣama epiyac pi tu pkalar
 friend:VOC memory *PI* DEM bring:IPV.SG
 ‘Friend, remember it!’⁶³⁸

The clearest example with a wish optative is the first, where Buddha’s disciple Kāḷodāyin speaks; in the other two, it is likely that the wishes are directed towards the Buddha, too (cf fragmentary AS12Db5).

IT247a5-6

tumem weña au • watkaṣṣi pi pañäkte niṣīdam_[a6]
 then say:3SG.PRT o order:3SG.OPT *PI* Buddha sitting.mat
ñremem kälými raso tsamtsi •
 fringe:ABL direction span grow:INF
 ‘Then he said, «O!, may the Buddha order to make the sitting-mat one span larger from the fringe!»’

⁶³⁸ Cf Couvreur (1954b: 99).

B134b3⁶³⁹

wertsyaine wrottsai | weñī pī sū tontsa pā(st) [15a]
 assembly:LOC large say:3SG.OPT PI DEM DEM:PERL.PL away
 ‘May he in a large assembly speak about those things!’

B341a7

/// (we)ñā kärtse pī ñāktā akšīt ñī ce_u yākn_u a ///
 say:3SG.PRT good PI god:VOC tell:2SG.OPT I:GEN DEM way
 ‘... (s)he ... said, «Good god!, may you teach me ... in that way ...»’

The example below is special because it is preceded by *te akālk ñāššalle* ‘this wish is to be wished’ in a2:

NS48+258a3-4

po o(n)olmi pi tuk-yä(k)n(e)_[a4]sa po yolaiñentants ākesa
 all being:PL PI in.this.manner all evil:GEN.PL end:PERL
 śānmiyeṃ
 come:3PL.OPT
 ‘May in this manner all beings come to the end of all evil.’⁶⁴⁰

Two short questions with subjunctive and present verbs seem to be softened by the particle:

B79.6

yesāñ pi ekalyimi tākaṃ seṃ ///
 you:GEN.PL PI control be:3SG.SBJ DEM
 ‘Is he *perhaps* under your [pl.] control?’

B91b4

w(e)sk(e)ṃ kuse pi se eñwe ste
 say:3PL.PRS who PI DEM man be:3SG.PRS
 ‘They say, «Who may this man be?»’

There are two examples with dubitative and irreal constructions combined with questions. In the first, one could imagine that the god Vibhūṣaṇaprabha, watching the scene of king Subhāṣitagaveṣin who is prepared to give his life in order to hear the law, hopes that the wish of the king can be fulfilled. In the second, it is clear that the speaker wishes to eat the porridge himself.

⁶³⁹ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁶⁴⁰ Cf Pinault (1994: 185, 189).

B99a4

vibhuṣaṇaprabhe weṣṣāṃ ṇakteṃts saswa kuse pi ksa
 Vibhūṣaṇaprabha say:3SG.PRS god:GEN.PL lord:VOC who PI INDF
ayi-ne pelaikne klyauṣṭsi
 give:3SG.OPT-3SG.SUFF law hear:INF
 ‘Vibhūṣaṇaprabha says, «Lord of the gods!, would anyone give him the law to hear?»’

B107a3

akālk tsāṅkā-ne makte pi kca tā onkorñai ñis
 wish rise:3SG.PRT-3SG.SUFF how PI INDF DEM porridge I
śwātsi källälle ṣeym
 eat:INF obtain:SBJ.GER be:1SG.IPF
 ‘Then there arose to him the wish: «How could I in any way get to eat this porridge?»’

mapi ‘isn’t it?’

The form of the particle *mapi* is not self-evident: in its classical form, it could be either /maṣəy/ or /máṣəy/. While an arch. *māpi* could in fact be read *mā pi*, i.e. the negation *mā* plus the particle *pi*, the phonemic form /máṣəy/ is proved by arch. *māpi* in AS12Fb4, B295b6 (consequently, arch. *māpi* B273b5 is to be read *mā pi* instead).

In most of the examples, *mapi* is found at the beginning of a clause, which fits well with its being accented:⁶⁴¹ its scope seems to be the whole following clause. It has a very strong tendency to combine with second person predicates (including imperatives and hortatives)⁶⁴² and the speaker evidently wants to coordinate his suggestion or suggestive question with the hearer.⁶⁴³

A difficult matter with *mapi* is that it mostly seems to be positive – it can even combine with a negation – but sometimes also negative. This strongly reminds of

⁶⁴¹ AS12Fb4 *klyomai klautkā ṇāke māpi* ‘O noble one, he has now returned, hasn’t he?’ is worth citing only because *māpi* is found at the end of the clause; otherwise the context is too fragmentary (pace Thomas 1979: 45, *klautkā* is not an ipv. because there is no initial *p-*).

⁶⁴² If Sieg and Siegling’s restoration of B127b1 (1953: 61) is correct, it would be an example without a clear second person, but the passage is rather damaged: *su m(a)p(i) källoy s(e pā)lsko* ‘he would not attain this thought, would he?’ (in this archaic manuscript, both <ä> and <a> are used for /á/, so that *m(a)p(i)* is in fact a possible restoration; *m(ä)p(i)* is unlikely because the *m* is not a Fremdzeichen <m>).

⁶⁴³ There is one canonical example with an imperative, but the word *mapi* is restored there: B85b3-4 *saswa appakk(a ma)pi psāmpar ñis cem rākṣatsenmem loke* (cf NS355b4 /// *cenä(n) rākṣat(s)e(nmem) ///*) ‘Dear father, please take me away from these rākṣasas!’ (Couvreur 1964: 240). Since the element of appeal is very strongly present here, and not in the other examples of *mapi*, it is perhaps better to read simple *pi*, which in turn fits very well. The missing akṣara might have to be restored as *twe* ‘you’.

suggestion strategies in questions like English *It is expensive, isn't it?* or French *C'est cher, n'est-ce pas?*, but it remains enigmatic why the value of this suggestion seems to be labile, i.e. why it wouldn't be marked for being positive or negative.

I will first adduce examples that illustrate the coordinative and suggestive usage of the particle, before I embark on a discussion about its seemingly incidentally inherent negative value.

The two questions given below can only be answered by the hearer, but the speaker clearly has a strong expectation as to what the answer will be like.

NS36+20a1⁶⁴⁴

(ta)ne candramukhe walo weṣṣām auspa poks(e)ñ mapi twe
 here Candramukha king say:3SG.PRS truly tell:IPV.SG MAPI you
 nest
 be:2SG.PRS

'Here king Candramukha says, «Truly, say it! It is you, isn't it?»'⁶⁴⁵

NS35b2

mapi ñke ñaṣtar twe pūdñāktamñe (perne) ///
 MAPI then desire:2SG.PRS you Buddha:ADJ worth

'For you desire the Buddha rank, don't you?'⁶⁴⁶

In the below example, we can interpret *mapi* as introducing a suggestive question as above, but it has a strong rhetorical value and is used as a kind of argument:

B77.1-2

mapi kca sū cāmpa-m(e) laklene waste
 MAPI any DEM can:3SG.PRS/SBJ sorrow:LOC refuge
 'He can somehow be a refuge in our distress, can't he?'⁶⁴⁷

The uses illustrated above fit very well with the evidence from a fragmentary bilingual, where it corresponds to Skt. *nanu*, "emphatische Partikel zur Einleitung einer Frage, die eine zustimmende Antwort erwartet" (SWTF: III, 6, col. 2).

B196b6

[SKT:] /// nanu drṣṭam [TB:] m(a)pi ka lelyako(ṣ)
 isn't it see:PRT.PTC MAPI EMPH see:PRT.PTC

⁶⁴⁴ B93a3 deviates slightly: *nano candramukhe walo weṣṣām auspa poñ mapi twe ///*.

⁶⁴⁵ Cf Couvreur (1964: 246).

⁶⁴⁶ Cf Couvreur (1964: 239).

⁶⁴⁷ Cf Couvreur (1954b: 99; see also Schmidt 2001: 303: "Er kann uns doch irgendwie im Leid Schutz sein.").

That the expected answer is positive seems further confirmed by the example below, where *mapī* is combined with the negation *mā*, which suggests, of course, that negation is not part of the meaning of *mapī* itself (see also Lühr 1997: 102).⁶⁴⁸

B100a1

/// (yākṣe) weṣṣām mapī mā ca(mpāt) c(e)_u pito
yakṣa say:3SG.PRS MAPI not can:2SG.PRS/SBJ DEM price
rīntī kuce nīś nāskau-cmem :
give.up:INF what I request:1SG.PRS-2SG.SUFF:ABL

'The yakṣa says, «you cannot give the price I request from you, can you?»'⁶⁴⁹

In the following two examples, we find unambiguous modal forms, instead of the presents *nest* and *nāstar* and the present-subjunctive *campāt* in the examples cited above. It is very difficult to give these instances an interpretation along the lines of the meaning establish so far. Rather, a negation seems required in the first, and a final reading makes the translation much more sensible in both.

B128b5⁶⁵⁰

! yatt yolyye yamai ! waṣāmñeṣṣe pālskosa cī ! weskau
go:2SG.PRS bad way friendship:ADJ mind:PERL you say:1SG.PRS
mapī mārsat te • [10b]
MAPI forget:2SG.SBJ DEM

'... you are going the wrong way. Because of my friendly mind I am telling [it] to you so that you won't forget this.'⁶⁵¹

B295b6⁶⁵²

papāṣsorññe eñcitar ! māpi lyñitve⁶⁵³ lāklemem [3d]
morals seize:2SG.OPT MAPI go.out:2SG.OPT<you sorrow:ABL

'You should keep to the morals, so that you get out of sorrow.'⁶⁵⁴

⁶⁴⁸ Another passage of the same text seems to require a similar interpretation, but here a positive interpretation seems preferable (i.e., without restored negation in the lacuna): B100a6-b1 yā(kṣ)e weṣṣām oroccu walo amāskaimem amās(k)ai [b1] [4 akṣ] /// puwarne yaptsi mapī tserentar-ñ 'The yakṣa says, «O great king, (it is) more than difficult – you fool me [about] your entering the fire, don't you?»'

⁶⁴⁹ Cf Krause (1952: 206).

⁶⁵⁰ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

⁶⁵¹ An interpretation /mā pəy/ with archaic <a> for class. <ā> seems excluded because in this manuscript only /ə/ is written in the archaic way (<ā> even under the accent): we expect /mā pəy/ to be written <mā pi>.

⁶⁵² Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁶⁵³ For lyñit tve, i.e. lñit tve.

For a series of questions introduced with *mapī* where very clearly a negative answer is expected there are solid Sanskrit parallels. Even though in the following example there is a mismatch between ‘sold’ in the Sanskrit version and ‘bought’ in the Tocharian and Chinese versions, the overall structure is clear: questions where a positive answer is expected are left unmarked and all those where a negative answer is expected are preceded by *mapī* in Tocharian, *bù* 不 in Chinese and *mā* in Sanskrit.⁶⁵⁵

THT1111b1

mapī kāryau nestā

MAPI buy:PRT.PTC be:2SG.PRS

‘You have not been bought, have you?’⁶⁵⁶

Skt. *mā vikrītakaḥ* ‘Du bist nicht verkauft worden?’ (Härtel 1956: 79)

Chin. *bù mǎi dé bù* 不買得不 ‘Bist du nicht käuflich erworben worden?’ (Chung 2004: 87, 110)

It is certainly ad hoc to suppose that *mapī* in this interrogation is a bad copy of Sanskrit *mā* and that normally it translates *nanu*. Nevertheless, it must be noted that *mapī* normally has a positive value, also in questions, and it can even be combined with the negation *mā*. Only in the karmavācānā questionnaire and one other example do we find *mapī* with a negative value.

wa ‘yet; for’

wa is attested only a few times and its meaning can hardly be established with certainty. In the first three examples cited, the particle seems to have a light adversative value, underlining that something is different than expected, or something is the case in spite of other things that could lead one to expect that it is not the case. In German, it is therefore often rendered with “doch, aber”, and in English, ‘yet, still’ or ‘nevertheless’ (Adams 1999: 575) would seem appropriate. However, in the last two examples a light causal value seems to give better interpretations; I have rendered this tentatively as ‘for’, while Adams opts for ‘therefore’ (l.c.). If the two senses that have posited are approximately correct, and one were to provide a

⁶⁵⁴ Cf Lühr (1997: 101). The preceding pādas of the strophe are clear enough: B295b4-6 *saṃsāra*_[b5] *ntse śāññāññe* | *ptes tve keśā anaiśai* [3a] *śamñe cmeltse yānmalyñe* | *olypotse śpā waimene* [b6] [3b] *k_wce tve mentsi yamāstā* | *k_wcene yes mā cāmpāmoñ* [3c] ‘Pay careful attention to the nature of the saṃsāra and the fact that the human birth [form] is very difficult to attain. What grievance have you caused? Wherein have you been powerless?’ (cf Thomas 1952: 52).

⁶⁵⁵ Contrary to the rules of classical Sanskrit grammar, the present is negated with *mā* instead of *na*. For this particular use of *mā* in questions in Buddhist Sanskrit, see Edgerton (1953: 1, 202, §42.12). In a special note on the karmavācānā ritual he writes that the nun is supposed to reply *na hi* “no!”, i.e., the expectation is that the answer is negative.

⁶⁵⁶ The other questions with *mapī*, 7 in total, are found in THT1111b1-2 and b4.

semantic link between them, this may be that in both uses it highlights the information: either it is contrary to expectation, or it is known in principle, but receives special relevance in the context.

B46b5 and GQa1.2 (Pinault 1987: 160, 163) are left out because they are too fragmentary; for B30a1, which rather reads *wat*, see above (p 288).

B88b1⁶⁵⁷

<i>pilko</i> (s)	<i>ā</i> ñmālaṣkeṃ	<i>lkāṣṣān-me</i> †	<i>taṇsa</i>	<i>sam</i>	<i>mñcuṣke</i>
look:PERL	pitiful	look:3SG.PRS-PL.SUFF	love:PERL	DEM	prince
<i>lareṃ</i>	<i>pātār</i>	<i>ramt</i> : [1c] ⁶⁵⁸			
dear	father	like			
<i>mā</i>	<i>wa</i>	<i>ksa</i> ṣ	<i>cwimp</i> [b1]	<i>māsketrā</i> †	<i>waste</i> <i>comp</i>
not	WA	INDF and	DEM:GEN	be:3SG.PRS	protection DEM
<i>la</i> (klene 1					
sorrow:LOC					

‘With a pitiful look the prince looks at them with love, like at a dear father. Yet there is not any protection for him in his sorrow.’⁶⁵⁹

AS12Ib5

<i>kr_{ui}</i>	<i>añme</i>	<i>mā</i>	<i>nesāṃ</i>	<i>kete</i>	<i>ñāke</i>	<i>tsālpālñe</i>	<i>pālskanātrā</i> •
if	self	not	be:3SG.PRS	who:GEN	now	deliverance	think:3SG.PRS
<i>śāmmaṣṣālñe</i>	<i>wa</i> (•)						
fetter	PCL						

‘If there is no “self”, by whom now is deliverance imagined?’⁶⁶⁰ Nevertheless [there is] a fetter.’

B246b4⁶⁶¹

<i>ñās</i> †	<i>ykāk</i>	<i>wa</i>	<i>śāyau</i>
I	still	WA	live:1SG.PRS/SBJ

‘... still I live nevertheless ...’⁶⁶²

⁶⁵⁷ Verse: metre a, b: 8 † 7 † 6, c: 9 † 9, d: 7 † 6.

⁶⁵⁸ Apparently one syllable long.

⁶⁵⁹ Cf Couvreur (1954b: 102).

⁶⁶⁰ Or: ‘whose deliverance is thought of?’

⁶⁶¹ Verse: metre 4 x 5 † 5 † 8 † 7 (5 † 5 † 4+4 † 4+3). Cited is pāda 80d from the 10th until the 14th syllable.

⁶⁶² Adams (1999: 575).

B231a1⁶⁶³

[a₁] *twe* *nervāṃne* | *yneśne* *ram* *no* *klyauṣit* *te* [1c]
 you *nirvāṇa*:LOC manifestly like but hear:2SG.OPT DEM
cai *wa* *ñakti* *toṣitṣṣi* | *k₁₄se* *tañ* *ṣeyem* *ṣaṇ* *śamna* • 1
 DEM:PL WA god:PL Tuṣita:ADJ who you:GEN be:3PL.IPF REFL people:PL
 ‘You (have gone?) into the *nirvāṇa* – may you listen attentively to this! For these
 are Tuṣita gods who were your relatives.’⁶⁶⁴

B273a5-b3⁶⁶⁵

snai *keś* *wā* *wes* | *cī* *saim* *yāmoṣ* |
 without number WA we you refuge do:PRT.PTC
tallāñciśkaṃ [28a]
 miserable:PL
pātār *mātār* | *rīntsāmte* *pest* | *ciṣc* *ikā* [28b]
 father mother abandon:1PL.PRT away you:ALL
 (*māsta*) [b₁] *no* *twe* | *rīne* *rāme(r)* | *n(e)rvvāṇṣai* *pest* [28c]
 go:2SG.PRT but you city:LOC quickly *nirvāṇa*:ADJ away
orāsta *wes* | *kleśānmāṣṣem* | *sānānts* *śwātsi* 28
 leave:2SG.PRT us *kleśa*:PL.ADJ enemy:GEN.PL food
 (*wināske_{u-}*) [b₂] *cā* | *erepāte* | *tsātsaikarnne* [29a]
 honour:1SG.PRS/SBJ beauty form
tsāñkaṃ *nno* *ttwe* | *te* *mānt* *pārmānk* | *māsketār* *ñī* [29b]
 arise:3SG.SBJ but you DEM like hope be:3SG.PRS I:GEN
wes *wā* *nnai*⁶⁶⁶ (*tne* | *yolai*) [b₃] *ñ* *mākā* | *yekte* *perni* [29c]
 we WA PCL here evil very little glory
yust-me *wā* *nnai*⁶⁶⁶ | *tallāñciśkaṃ* | *mā*
 make.ripe:2SG.PRS-PL.SUFF WA PCL miserable:PL not
*west-meścā*⁶⁶⁷ 29
 say:2SG.PRS-PL.SUFF:ALL

‘For in countless numbers we miserable ones have made you to our refuge [and]
 we abandoned our father and mother for you ..., but you quickly went away to
 the *nirvāṇa* city [and] you left us as food to the *kleśa* enemies. I (honour) you in
 [your] beauty and form. «May you but arise»,⁶⁶⁸ thus is my hope. For we are very

⁶⁶³ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁶⁶⁴ Cf Thomas (1957: 74).

⁶⁶⁵ Verse: metre 4 x 4 | 4 | 4.

⁶⁶⁶ So to be corrected for *tnai* in the manuscript.

⁶⁶⁷ Written <śca>.

⁶⁶⁸ This part is difficult because *ttwe* ‘you’ does not fit together with *tsāñkaṃ*, a 3sg. Perhaps the construction is to be compared with *spantai kṣṣi wem* ‘may the teacher speak trustfully’

evil here and of little glory; you make us miserable ones ready, [but] you don't speak to us.⁶⁶⁹

rai 'o!'⁶⁷⁰

The existence of a particle *rai* is ascertained, but its meaning can hardly be established: there are very few examples, and most of them are fragmentary to such a degree that a reliable interpretation is not possible. As far as the syntax is concerned, the particle is sometimes – but not always – sentence-initial and it combines with nouns or adverbs rather than verbs.⁶⁷¹

From the context of the following example we can deduce that *rai* combines well with a high volume of the voice (but what follows is obscured by a lacuna):

AS17Ka6

tume(m) b(rahmadat)t(e) walo a(r)w(ā)r(e) kerciyenne yopsa
 then Brahmadatta king ready palace:LOC.PL enter:3SG.PRT
eñkaucar weṣṣām aṣkār rai w(r)occi lāñc cemeṃ [b₁]
 out.loud say:3SG.PRS back RAI great king:PL DEM:ABL
 'Then king Brahmadatta, [who had become] ready, entered the palace and says out loud: «[Go] back from there!, [you] great kings!»'

And a comparable example from the story of Ulkāmukha and his brothers (Rockhill 1884: 11):

B589b3

/// ñc· *weskeṃ aṣkār rai : pyāmtso sāsweñtse yañkor mçuṣkanta*⁶⁷²
 say:3PL.PRS back RAI do:IPV.PL lord:GEN command prince:PL
 '... say: «[Go] back!, act according to the command of the lord.» The princes ...'

Once, it is found with a vocative (*pālskoṣṣu*):

(see 3.5.5, p 238), where a 3sg. is used in direct address. Alternatively, *ttwe* might have to be read *ñntwe* for *entwe* 'then', but in that case it is unclear what the subject of *tsāñkam* is.

⁶⁶⁹ Cf Carling (2000: 161), Thomas (1954: 760), Adams (1999: 742).

⁶⁷⁰ With two out of four occurrences after *aṣkār*, it is conceivable that *rai* is in origin a variant of *nai* after *-r* (cf 2.5.8, p 90), but with the small number of attestations this must remain just a suggestion.

⁶⁷¹ B126b7 *mākte kca tāñ rai* /// might contain a further example of the particle, but *rai* could also start a new word.

⁶⁷² The rest of the line is too fragmentary for a translation: *ak· – – ka* [b₄].

(|| *taru*)ṇadivākarne || *rai* *pālskoṣṣu* ///
taruṇadivākar:LOC *RAI* spiritual
‘In the *taruṇadivākar* tune: «O spiritual one!, ...»’

⁶⁷⁴ Without doubt, the TB voc.sg. *kärtse-šälype* followed.

ñke ‘now’

ñke is a sentence particle⁶⁷⁵ with little semantic content that is regularly found in the second position of a clause (for particle strings, see the note in the introduction to 3.7.5, p 287). It has no modal value and is probably best classified as a “discourse particle”; still, it deserves a short comment because it is frequent in apodoses. Sieg and Siegling have proposed to render *ñke* with “doch” (in their glossary, 1949: II, 199), or with “jedoch” (next to “doch” in the translations, 1949: I, passim). However, the adversative *doch* ‘yet’ and the inferential *doch* ‘as you must agree’ account only for a part of the attestations, and the same is true of Adams’ ‘then’ (1999: 248). In fact, these translations are incompatible to a high degree, but together they cover the usage of *ñke* to a very large extent.

English ‘then’ seems a good way to render the use in apodoses, frequent indeed. However, it is not obligatory in apodoses at all and it can combine with other elements marking the apodosis, especially *ot* (see below). There are many examples of that kind, which do not seem to require any explicit rendering in the translation; after all, Tocharian does not need to mark protasis and apodosis explicitly, and ‘if’ and ‘then’ can freely be added in the translation of any conditional.

B5a6⁶⁷⁶

tom mā tākoṃ śaiṣṣene | mā ñke tsañko(y)
 DEM:PL not be:3PL.OPT world:LOC not ÑKE rise:3SG.OPT
puḍñākte : [69a]
 Buddha

‘If these were not there in the world, then the Buddha would not arise.’

I am tempted to connect this weak semantics on a much more general anaphoric level, which can be shown with a.o. the following type of examples:

AS7Ba5-6⁶⁷⁷

k_uce te ma_[a6]nt wñāwa | tu ñke weñau anaiśai : [2b]
 what DEM like say:1SG.PRT DEM ÑKE say:1SG.SBJ careful
 ‘What I said like that, that I will say in detail.’

Here it is clear that *tu* is the anaphoric pronoun that takes up the relative *k_uce*, and *ñke* seems to coordinate this: it shifts the attention from the preceding to the way it is continued and establishes a kind of forward link. In paraphrasis, this could be

⁶⁷⁵ Thus Sieg and Siegling (1949: II, 119); Adams’ classification as a conjunction (1999: 248) is contradicted by its frequent combination with conjunctions and the fact that its semantics seem too weak for a conjunction.

⁶⁷⁶ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁶⁷⁷ Verse: metre 4 x 5 | 7 (5 | 4+3).

illustrated with ‘now’ or ‘well’ as in *what I said before, well, I will say ...* or *what I said before, that now I will say ...* I presume that the apodotic *ñke* is a special type of this anaphoric use (of still weaker semantics): *if A, well, in that case B* or *if A, at that moment B*. Of course, this is perfectly expressed by *then* in English, but the tricky thing is that *then* can also be used in a translation if Tocharian has no *ñke*.⁶⁷⁸

What makes it even more difficult to view *ñke* as a ‘then’ is that it may occur also in protases, or even in both protasis and apodosis (evidently, such difficulties would not arise if one just accepted different functions of the particle instead of trying to unify them in one description). In the example below, the second *ñke* may be the ‘meaningless’ apodotic-anaphoric *ñke*, whereas the first links back to the preceding and presents this conditional as a reason not to worry – this I have rendered by ‘since’ in the translation.

B78a3

krui ñke cai täriwamñeñ-cä ot ñke ñis ysape
 if ÑKE they love:3PL.PRS/SBJ-2SG.SUFF then ÑKE I close
ykāk källāt
 still obtain:2SG.SBJ

‘Since if they are kind to you, then you will find me close (to you) all the same.’

A similar example is the following, where it seems necessary to let *ñke* refer to the first clause with *pyāmtso* and take *ñis yesām pānto* as an intervening addition:

B29a8⁶⁷⁹

(po spe)l(k)e pyāmtso | warkšältsa ñis yesām pānto : [15a]
 all zeal do:IPV.PL energy:PERL I you:GEN.PL help
mā walke ñke⁶⁸⁰ ñis ksemar | tu postām onmim
 not long ÑKE I extinguish:1SG.SBJ DEM after regret
tākam-me : [15b]
 be:3SG.SBJ-PL.SUFF

‘Exert all zeal energetically [with] me as your help, since before long I will go to extinction and after that you will have regret.’⁶⁸¹

⁶⁷⁸ In a very limited number of cases, and seemingly only in verse, *ñke* may come very late in the apodotic clause or even close it. As far as I can see, this is possible only with the apodotic *ñke* and its preferred position is then directly following the finite verb (e.g. B384b4, IT233+368b5).

⁶⁷⁹ Verse: metre 4 x 7 | 8 (4+3 | 3+5; here apparently 3+4 | 3+5).

⁶⁸⁰ *mā walke* is normally transcribed as two words, but *mā* often serves as a nominal negation, yielding a kind of compounds: *ñke* would then still stand in second position.

⁶⁸¹ Cf Sieg and Siegling (1949: II, 48).

In the above example, one could be tempted to take *nike* as a strong adversative “jedoch”: ‘exert all zeal: I am your help. But before long I will go to extinction’. In other cases, this temptation may be even stronger, but I find it hard to believe that such strong adversivity would combine with the weak meanings elsewhere. Even in an example as the one below, it is possible to do without a ‘but’; if needed, it could perhaps be taken from *ñake* ‘now’ rather than *nike*:

B85b4 = B86a1

ykāk tv(e) śāmane nest ñake nike cai ñ(i)ś pās
 still you alive be:2SG.PRS now ÑKE DEM:PL I away
śuwam
 eat:3PL.PRS/SBJ
 ‘You are still alive, now that these eat me up.’⁶⁸²

However, strong and weak meanings may occur side by side, and it cannot be excluded that in certain contexts *nike* means ‘but’ or “jedoch”.⁶⁸³

In my view, all nuances are in line with the evident etymology of *nike*, which as the only word starting with *nik-* must derive from *ñake* ‘now’ with assimilation of *ñk* to *nik* (Adams 1999: 248). Its co-occurrence with *ñake*, as in the example above, shows that not only its form was weakened, but its meaning, too. I think that the linking value of *nike* is very similar to developments found in e.g. Greek for *vú(v)* or even in English for *now*.

Further support for this semantic derivation is the striking fact that among the examples that I have assembled past tenses do not occur at all: all finite verbs are present (here I include nominal clauses), subjunctive, or optative.

ot ‘then’⁶⁸⁴

The adverb *ot* is frequent in apodoses: it then starts the clause and we may assume that it was accented. When used in conditionals, little difference can be noted vis-à-vis *nike*, but if there is any, *ot* is without doubt the stronger of the two. That they are not isofunctional is clearly shown by the fact that they may co-occur (see above). Just like *nike*, *ot* certainly is not a pure apodosis marker: in its other functions the differences with *nike* become immediately apparent.

⁶⁸² Cf Couvreur (1954b: 101, see also Schmidt 2001: 315).

⁶⁸³ In admitting this, I think of Dutch *maar*, the regular adversative conjunction, but at the same time an adverb meaning ‘only’ and a particle softening imperatives to well-meant suggestions (deriving from ‘only’ through ‘there is nothing better to do – only that, so just consider doing it’). The account of Haeseryn e.a. (1997: 457) is unsatisfactory.

⁶⁸⁴ I do not discuss *entwe* ‘then’ because its meaning is not disputed. It may occur in the apodosis of conditionals, but it is an adverb that can also connect a main clause to a preceding text unit, ‘thereupon’ (Adams 1999: 85; Siegling 1949: II, 98).

ot is a temporal adverb and it can be used in future and past contexts alike (unlike *ñike*, which is not used in past contexts); I have found no good examples of present usage, nor co-occurrence with *ñake* ‘now’. The relatively high semantic content of *ot* vis-à-vis *ñike* is in my view also demonstrated by the fact that it is never repeated: one token suffices. If it is used in non-conditional contexts, it may anaphorically refer to a preceding subclause, i.e. *at that time*, and its syntactic behaviour then does not seem to be different from conditionals.

B77.2-3

ente se krentau(nattse a)_[a3]rañemi ñemtsa walo šai ot
 when DEM virtuous Arañemi by.name king be:3SG.IPF then
rano sū ololyesa ākteke wantare yamaša :
 too DEM extremely wonderful thing do:3SG.PRT
 ‘When this virtuous one was a king called Arañemi, then he did an even more wonderful thing.’⁶⁸⁵

It may, however, also mark an important turn in a narrative, or start a new episode. In that function, it is rare at the beginning of the clause, but rather tends to be placed towards the end of it.

B5a1-2⁶⁸⁶

nānok pudñakt(e māskitrā | śrā)_[a2]vastī spe sānkāmpa : [66a]
 again Buddha be:3SG.IPF Śrāvastī close community:COM
kokaletstse īyoy su | prasenacī walo ot : [66b]
 driver drive:3SG.IPF DEM Prasenajit king then
šem kautāte koklentse | waiptār pwenta kāsānte : [66c]
 axis break:3SG.PRT car:GEN apart spoke:PL scatter:3PL.PRT
 ‘Again the Buddha stayed close to Śrāvastī with the community. As a driver then drove king Prasenajit. The axis of the car broke and the spokes were scattered apart.’

B23b6⁶⁸⁷

a(l)(o)ñkn ostwaśco mas go:3SG.PRT ānande ot pintwāto : [24a]
 other house:ALL.PL go:3SG.PRT Ānanda then alms
śeśwer ompostām masa pudñāktentse tw ākša : [24b]
 eating after go:3SG.PRT Buddha:GEN DEM announce:3SG.PRT
 ‘Then Ānanda went to other houses for alms. [But] he went after eating [and] this he told to the Buddha.’

⁶⁸⁵ Cf Couvreur (1954b: 99).

⁶⁸⁶ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁶⁸⁷ Verse: 5 pāda metre 4 x 5 | 8 (usually 5 | 4+4) + 1 x 8 | 8 | 5.

B42b4⁶⁸⁸

śrāvastn $\not\sim$ *osta-(ś)me(ñca)* | *(sn)ai* *(ke)ś* *ñāṣṣitr*
 Śrāvastī:LOC householder without number desire:3SG.IPF
ākālk | *seyi* *cmelñeṣṣe* : [26b]
 wish son:GEN birth:ADJ
tumem *wnolm* $\not\sim$ *alleksa*⁶⁸⁹ | *cwi* *śnoy* *kātsane* *ot* |
 then being other $\not\sim$ INDF DEM:GEN wife:GEN womb:LOC then
camel wārpāte : [26c]
 birth receive:3SG.PRT

'In Śrāvastī a householder incessantly cherished the wish for the birth of a son.
 Then another being received birth in the womb of his wife.

Examples of apodotic *ot* can be found throughout this study. I have not been able to establish a clear rule that explains its presence or absence in conditionals, but I have noted some points. The conjunction *kr_{ui}* does not seem to combine with *ot* very often, as I have found only B78a3. If we leave fragmentary protases as in AS15Aa5, B273b3-5 or B326a1 aside, we see that the protasis is unmarked in B273a2-3 and B331b2-5 and formed with *ente* (*inte*) in B77.1-2 and THT4092b2. Present and subjunctive apodoses are both found, but it may be telling that in spite of that present, B590a6-7, B590a8-b1 and THT4092b2 seem to have future reference.

Given the mixed statistics, we have to be very careful with conclusions. Nevertheless, since *ot* can also be used in the past tense, I would expect that it correlates with *when*-protases rather than *if*-protases (cf two times *ente* vs one time *kr_{ui}*): it clearly refers to real tense rather than hypothetical situations. However, the material does not afford to apply such a classification too rigorously: it is found in the notoriously general prātimokṣa conditionals (e.g. B331b2-5, B326a1) as well as in stotra poetry of general content (e.g. B273a2-3).

ente 'where'⁶⁹⁰

The basic meaning of *ente* must be 'where'; probably, it was in origin only interrogative, but it is often used as a relative (Adams 1999: 85). From its original local meaning it was shifted to a temporal meaning 'when; when?'. As a relative temporal conjunction it may occur in conditionals, functionally close to *kr_{ui}* 'if'. Whereas past tense use of *kr_{ui}*, i.e. like English *when*, is exceedingly rare, it is well attested for *ente*, e.g.:

⁶⁸⁸ Verse: metre 4 x 6 | 6 | 5.

⁶⁸⁹ For *allek ksa*.

⁶⁹⁰ On the variant *inte*, see Peyrot (2008a: 172).

B77.2-3

ente se krentau(nattse a)_[a3]raṇemi ñemtsa walo šai ot
 when DEM virtuous Araṇemi by.name king be:3SG.IPF then
rano sū ololyesa ākteke wantare yamaša :
 too DEM extremely wonderful thing do:3SG.PRT
 ‘When this virtuous one was a king called Araṇemi, then he did an even more
 wonderful thing.’⁶⁹¹

Probably it means ‘when’, not ‘if’ in conditionals with future reference. That is to say, it refers to a specific and not a hypothetical future point of time.

B77.1-2

ente se kr(e)ntaunatts(e) sunetre wal(o) p(a)ñ(ä)kt(e) šaiṣṣen(e)
 when DEM virtuous Sunetra king Buddha world:LOC
tsānka(m) ot cwi sp(aktaniki alā)_[2]läcci tākam
 rise:3SG.SBJ then DEM:GEN servant:PL indefatigable be:1PL.SBJ
 ‘When this virtuous king Sunetra rises as a Buddha in the world, then we will be
 his indefatigable servants.’⁶⁹²

Derived from the conditional use is the indefinite use of reduplicated *ente*, as illustrated below.

IT305b3

ente ente wirotānta weñau te kārśanalle ||
 when when incompatibility:PL say:1SG.SBJ DEM know:PRS.GER
 ‘Whenever I recite the incompatibilities, this is to be understood.’

Interestingly, *ente* is also frequent in abhidharma texts, of philosophical content. It is unclear whether much value must be attached to this use, since the texts are often very close to Sanskrit originals (which are unfortunately mostly lost). If one would insist that this use cannot be captured under a *when*-meaning, it is theoretically possible that in the latest phase of Tocharian B, where these texts are from, *ente* had further shifted to ‘if’. In this particular example, we could even translate *ente* with ‘where’, especially since it is taken up with *omte* ‘there’.⁶⁹³

⁶⁹¹ Cf Couvreur (1954b: 99).

⁶⁹² Cf Couvreur (1954b: 99).

⁶⁹³ Cf the parallel in the Abhidharmakośa of Vasubandhu, where we read “L’espace a pour nature de ne pas empêcher (*āvṛṇoti*) la matière (*rūpa*) qui, en effet, prend place librement dans l’espace; et aussi de ne pas être empêché (*āvriyate*) par la matière, car l’espace n’est pas délogé par la matière.” (de La Vallée Poussin 1980: I, 8).

B178b3

ente rūpaṣṣe svabhāp tsāṅkau tākaṃ mā omte
 when matter:ADJ nature arise:PRT.PTC be:3SG.SBJ not there
akāśāntse pkante māsketār
 space:GEN hindrance be:3SG.PRS

‘When (where?) the nature of the matter⁶⁹⁴ has come about, it is no hindrance for *ākāśa* [space].⁶⁹⁵’

kr_{ui} ‘if’

The conjunction *kr_{ui}* has been studied in detail by Pinault (1997: 473-479). He noted that *kr_{ui}* is an important element in conditional constructions, where it marks the protatic clause of all types of conditionals. However, it need not be there, and, importantly, it is also attested in non-conditional past temporal subclauses.

The most frequent non-conditional type is the past iterative clause, which is formed with an optative subclause and an imperfect main clause (the imperfect being preferred for repeated past actions). This type can easily be unified with the conditional type because in many languages such clauses take the same conjunction as conditionals, e.g. German *wenn* or Dutch *als*: both ‘if’, but used for past iteratives, too.⁶⁹⁶

B246a1-3⁶⁹⁷

lkoym-c kr_{ui} ynemane | ypauna kṡṡainne ci⁶⁹⁸ | plu_{[a2]ṡṡi-ñ}
 see:1SG.OPT if go:PRS.PTC land:PL village:LOC.PL you leap:IPF.3SG
saksa palsko⁶⁹⁹ ārañce | yapit wat no
 happiness:PERL mind heart enter:2SG.OPT or but
wertsyaine [79c]
 community:LOC

ñakty āñcāl-[a3]ṡarne | kemññi rāmnoyem | ... [79d]
 god:PL añjali-hand:DU knee:DU bow:3PL.IPF

‘Everytime I saw you going through lands and villages, my mind and heart leapt for joy, or everytime you entered the community the gods bowed their knees with *añjali* hands.’⁷⁰⁰

⁶⁹⁴ It seems that this should mean ‘matter in a natural way’ (cf footnote 693).

⁶⁹⁵ Thomas (1967: 267).

⁶⁹⁶ Cf Thomas’ translation of the following example with “[Immer] wenn ich dich sah” and “[immer wenn] du in die Versammlung eintratest” (1957: 69).

⁶⁹⁷ Verse: metre 4 x 5 | 5 | 8 | 7 (5 | 5 | 4+4 | 4+3).

⁶⁹⁸ *ci* is added later in the manuscript, but it is difficult to understand, since *lkoym-c* already contains the 2sg. suffixed pronoun *-c*.

⁶⁹⁹ In the manuscript corrected to *palskw*, the form needed to arrive at the correct number of syllables in this unit.

There is one completely isolated example of a non-iterative *kr_{ui}* clause in a past context. If it is not due to a calque on a Sanskrit model (which is, admittedly, an ad hoc solution), I can only think of the following alternative interpretation. The most straightforward, traditional interpretation takes the two *kr_{ui}* clauses as indicating the moment at which the event of the main clause occurred. Thus, the three actions – being born, roaring for friendship, seeking to understand – have apparently taken place in a negligibly small time span and are equated with the realisation of happiness. It is theoretically possible to take the *kr_{ui}*'s as *ifs* and make the whole strophe an inferential conditional. Of course, the content of such a reasoning is rather surprising, but this might have served a stylistic purpose; i.e., perhaps the overall sense is not 'if A, B, C, then D', but 'since A, B, C, therefore D'. In any case, the two clauses of the first *kr_{ui}* complex make up one set of events, the first indicating the background and the second the action.⁷⁰¹

B224a2-b1⁷⁰²

*kr_{ui} two pārweṣṣa*⁷⁰³ | *lāc* *mā*_[a3]*tri* *kektseñmem* [4a]⁷⁰⁴
 if you first go.out:2SG.PRT mother:GEN body:ABL
metār pontām̐ts |⁷⁰⁵ *kārtseṣc* *nawatai* *ṣāp* [4b]⁷⁰⁶
 maitrī all:GEN.PL good:ALL roar:2SG.PRT and
lāklentants (·)-*rma* *ṣāp* |⁷⁰⁷ *ritātai* *kr_(u)ī* _[b1] *kārsatsi* [4c]
 sorrow:GEN.PL seed? and seek:2SG.PRT if know:INF
tusa krentewnants | *p(o)* *ak(e)* *sakyānasta*⁷⁰⁸ 4
 thus virtue:GEN.PL all end happiness/fulfil:2SG.PRT

⁷⁰⁰ Cf Thomas (1957: 69, 213).

⁷⁰¹ A (rather imprecise) parallel from the Sanskrit Rāhulastava is construed with a *yathaiva* – *tathaiva* 'like – so' correlation: *yathaiva prathamam cittam* [a] *utpannam tava bodhaye* | [b] *tvam tathaivāśya lokasya* [c] *pūjyaś copari ca sthitaḥ* || 3 || [d] "Schon als dir der erste, zu deiner Erleuchtung führende Gedanke entstand, da warst du für diese Welt ein zu Verehrender und ein über ihr Stehender." (Schlingloff 1955: 89).

⁷⁰² Verse: not very regular metre 4 x 5 | 7 (5 | 3+4) or perhaps (5 | 4+3).

⁷⁰³ For *pārweṣṣe*.

⁷⁰⁴ The preceding unit is one syllable short; perhaps one should read *lāco*, if the subdivision is 5 | 4+3. If pāda 4b is correct, the subdivision is rather 5 | 3+4, i.e. the unit *kektseñmem* should then become one syllable longer.

⁷⁰⁵ The preceding unit is one syllable short; perhaps one should read *pontām̐tso*.

⁷⁰⁶ The preceding unit is one syllable short; perhaps one should read *kārtseṣco*.

⁷⁰⁷ The translation 'seed' follows Thomas (1957: 175, 234). It requires a reading *lāklentantsarm ṣāp* or *lāklentants sarm ṣāp* (with arch. *sarm* for classical *sārm**). As an alternative, *lāklentantsarmna ṣāp* can be proposed (the singular *sārm* is not attested elsewhere), but this would require a reading *ṣp* for *ṣāp* to make the metre fit.

⁷⁰⁸ For *sak kyānasta*.

‘If [when] you first left the body of [your] mother, you have roared friendship (*maitrī*) for the benefit of all, and if you have sought to understand the seed of the sorrows, then you have achieved happiness, the ultimate of the virtues.’

I must admit that my interpretation may seem far-fetched, but the complete isolation of this type calls for an explanation: it is not economical to give up the analysis of *kr_{ui}* as an *if*-conjunction because of just one example.

Although the example below is fragmentary, it clearly contains *kwri* in a non-iterative past context. In this case, an inferential interpretation is unproblematic.

AS17Kb57⁰⁹

i – *cek* *warñai* | *kwri* *kālpāsta* *kos* *rā* *tsa* : [2a]
DEM until if obtain:2SG.PRT as.much also EMPH

pālka *tomp* *ñake* | *mākte* *ynāñ(m)o* *tākañ-cā* (:) [2b]
look:IPV.SG DEM now how worthy be:3SG.SBJ-2SG.SUFF

‘Even if you have obtained as much as that, look at that now, so that it will be worthy to you!’

Pinault adduces yet another example to show that *kr_{ui}* does not mean ‘if’, as it seems superfluous; he would rather see it as indefinite adverb of time, ‘anytime’ (1997: 478-479).

B284a2-37¹⁰

cmetār *ka* *ksa* [a₃] *kr_{ui}* | *nemcek* *postām* *sruketrā* [3b]
be.born:3SG.SBJ EMPH INDF if certainly afterwards die:3SG.PRS

‘If someone is hardly born, certainly he dies afterwards.’

I agree that it is not easy to put an *if* in the translation, but I would insist that it is a regular general conditional indeed, where in Tocharian B the conjunction *kr_{ui}* may always be used. That it is a general truth and not a specific conditional is of no relevance, in view of the striking frequency of *kr_{ui}* in texts of general content, such as the Karmavibhaṅga. Needless to say, my synchronic analysis of Tocharian B *kr_{ui}* as an *if*-conjunction is wholly independent of, and not in any way disadvantageous for Pinault’s arguments on Tocharian A *k_upre* and *k_uprene*, and his reconstruction of these words.

Interestingly, Pinault also noted that the word patterns of *kr_{ui}* are remarkable (1997: 474): it is often placed at the beginning of the protatic clause, and regularly so in prose, it seems, but very often in the middle or towards the end of it in verse. Although word order is much more flexible in verse than in prose, this phenomenon

⁷⁰⁹ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁷¹⁰ Verse: metre 4 x 5 | 7 (5 | 4+3).

definitely cannot be explained from “lax” word order alone, as the tendency is much stronger and more regular than other specifically metrical word order patterns.

3.7.6 PRESENT-SUBJUNCTIVE

Since the difference between present and subjunctive plays such an important role in the syntax of Tocharian B, it is striking that a large number of verbs do not make the distinction: counting attested stems only, I found that the ratio between subjunctive stems and present-subjunctive stems was approximately 3 to 2.⁷¹¹ Moreover, most productive classes have a difference between present and subjunctive, whereas the verbs with present-subjunctive follow patterns that are less frequent, so that it is not unexpected that some rather frequent verbs of the basic vocabulary are found here, such as ‘go’, ‘live’, ‘eat’ and ‘drink’. In view of this, the present-subjunctive is not only an interesting morphological category, but it is important on the syntactic level, too.

Of course, the present-subjunctive is useless if the difference in usage between present and subjunctive needs to be described. Rather, the question to be answered is whether the usage of the present-subjunctive is different from that of distinct presents and subjunctives. In particular, one might wonder whether the lack of a distinction is compensated by certain adverbs, particles, different construction patterns, or perhaps a shift in the usage of neighbouring moods, such as the optative, which could theoretically take over part of the function of the subjunctive.⁷¹²

Although it is not easy to prove that present-subjunctives are used exactly like normal presents and normal subjunctives, regardless of the ambiguity, I have found no positive indications for a different syntactic behaviour.

In the Udānavarga bilinguals and the Udānālāṅkāra, no attempt at a distinction is found. These bilinguals are valuable because the correspondences for normal presents and subjunctives are clear, but of course they cannot serve as evidence for genuine Tocharian syntax. Below, I first give two examples of present-subjunctives rendering a Skt. present, followed by a passage from the Udānālāṅkāra where a present-subjunctive translates a Sanskrit future.

⁷¹¹ Two caveats are due: 1) as the present stem is better attested than the subjunctive stem, the ratio of present vs present-subjunctive stems would be more in favour of the present stem, and 2) I have counted attested present-subjunctive stems, but these are not necessarily attested in subjunctive function – were all deducible subjunctive stems to be counted as well, then the ratio would also be much better for the subjunctive stems.

⁷¹² One may compare the tendency in German to use Konjunktiv I only when it is different from the present, but Konjunktiv II when Konjunktiv I and present are identical, i.e. 3sg. Konj.I *habe* ‘has’ vs 3sg. prs. *hat*, but 3pl. Konj.II *hätten* vs 3sg. prs. *haben* (= 3pl. Konj.I *haben*).

THT1355b3, IT164b3

papātkarmeṃ yaṃ
 dissociation:ABL go:3SG.PRS/SBJ
 ‘He goes in dissociation.’

Uv32.19c

viśreṇayitvā carati
 in.dissocation go:3SG.PRS
 ‘He is/lives dissociated.’⁷¹³

THT1350⁷¹⁴b1

(olya)potse sākw śayem
 very happiness live:1PL.PRS/SBJ
 ‘Very happily we live.’

Uv30.44a

susukhaṃ bata jīvāmaḥ
 very.happily INT live:1PL.PRS⁷¹⁵
 ‘Ah, so happily we live.’⁷¹⁶

B27b6⁷¹⁷

kakārpaṣ wikāskem | pālskaucañ marantse |
 descend:PRT.PTC drive.away:3PL.PRS/SBJ think:AG.N.PL Māra:GEN
śanmau kleśaṣṣe : [69b]
 fetter kleśa:ADJ

‘The thinkers that have descended [it] will drive away the *kleśa*-fetters of Māra.’

Uv12.11c-d

pratīpannakāḥ prahāsyanti | dhyāyino mārabandhanam⁷¹⁸ |
 practising drive.off:3PL.FUT thinker:PL fetters.of.Māra
 ‘The thinkers that have practised it will drive off the fetters of Māra.’

⁷¹³ 32.19 *yas tu puṇyaṃ ca pāpaṃ ca* [a] *prahāya brahmacaryavān* [b] *viśreṇayitvā carati* [c] *sa vai bhikṣur nirucyate* [d] ‘whoever abandoning good and evil, living chastily, dissociated, he verily is called an elder (monk).’ (Bernhard 1965: 437; Edgerton 1953: II, 502).

⁷¹⁴ To be turned over.

⁷¹⁵ Although this form could theoretically also be a subjunctive, this would be extremely surprising in the text and the possibility is better neglected.

⁷¹⁶ 30.44b-d *yeṣāṃ no nāsti kiñcanam* [b] *mithilāyāṃ dahyamānāyāṃ* [c] *na no dahyati kiñcanam* [d] ‘[we], who have not any possessions; if Mithilā burns down, no possession of ours is burnt’ (Bernhard 1965: 404; Hahn 2007: 122). This line is repeated in THT1350b5 = Uv30.47a, THT1350b6 = Uv30.48a, THT1368b2 = Uv30.45a.

⁷¹⁷ Verse: metre 4 x 6 | 6 | 5.

⁷¹⁸ Uv12.11a-b *eṣo hi mārgo nāsty anyo* [a] *darśanasya viśuddhaye* [b] ‘This is the path to purity of vision, there is no other’ (Bernhard 1965: 195; Hahn 2007: 48).

In the following example, it seems that the Sanskrit future is rendered by a Tocharian B present-subjunctive with the addition of the adverb *nke* ‘then’. Possibly, *nke* is used to disambiguate *lyaśāṃ*, but we have to be very careful with conclusions because the passage is extremely fragmentary and this usage of *nke* has no parallels elsewhere.

IT233+368b5

/// (lya)śā(ṃ) *nke*
lie:3SG.PRS/SBJ then
‘... will lie then ...’⁷¹⁹

UV1.35b

prthivīm adhiśeṣyate
earth lie.on:3SG.FUT
‘[This body] will lie on the earth.’

Apparently with no special marking, the present-subjunctive can be used to render the notion of future, just like the regular subjunctive (see 3.5.2, p 233).

B45a5⁷²⁰

mā tn̄ onuwaññe śāya nauṣ | mā ra śaiṃ
not here immortal live:3SG.PRT before not also live:3SG.PRS/SBJ
ksa t̄ ompostām | [32b]
INDEF DEM after

‘No-one has lived immortally before here, and no-one will live [immortally] hereafter.’

The following lines are from the casuistics of *pātayantikā* 1 about lying (Skt. *mṛṣā*), cf the detailed commentary and parallels in Pinault (1994: 136-184), who cites the following structural parallel from Pāli (p 169): *aññaṃ bhaṇissāmīti aññaṃ bhaṇati* ‘[if he says], «I will say this» [and] he says another thing’. In the first line, we have a neat contrast between *āyu* ‘I will give’ and *āyṣaṃ* ‘he gives’, but in the other three the present-subjunctives *yam*, *śū* and *yoku* are used as subjunctives without special marking.

NS58b1 = B336b5

se⁷²¹ śamāne te weṃ te ñiś tañ ā(y)u
which monk DEM say:3SG.SBJ DEM I you:GEN give:1SG.SBJ

⁷¹⁹ Peyrot (2008b: 85).

⁷²⁰ Verse: metre a, b: 8 | 7 | 6, c: 9 | 9, d: 7 | 6 (a, b: 5+3 | 4+3 | 6; c: 4+5 | 4+5; d: 4+3 | 6).

⁷²¹ Relative; B336b5: *kuse*.

m / *āyṣaṃ-ne* 60⁷²²

not give:3SG.PRS-3SG.SUFF

‘Which monk says this, «I will give this to you», [but] does not give it;’

NS58b1 = B336b6

cimpa *wa(t ya)m*⁷²³ *mā* *yaṃ* 60⁷²²

you:COM or go:1SG.PRS/SBJ not go:3SG.PRS/SBJ

‘or, «I will go with you», [but] he does not go;’

NS58b2 = B336b7

*weṣṣāṃ*⁷²⁴ *mā* *ṣpā* *śū* *nano* *śūwaṃ* 80⁷²²

say:3SG.PRS not and eat:3SG.PRS/SBJ again eat:3SG.PRS/SBJ

‘... (which monk) says, «I will not eat anymore», [but] eats again;’

NS58b2

mā *ṣp* *yoku* *nano* *yokāṃ* 60⁷²²

not and drink:1SG.PRS/SBJ again drink:3SG.PRS/SBJ

‘«I will not eat anymore», [but] he eats again ...’

In the example below, the different functions of the present-subjunctive *prāskau* ‘I fear’ etc are very clear. The first occurrence in pāda a is almost certainly a present. Since the not-fearing of pāda a is in direct conflict with the fearing of pāda c, the latter must be a conditional subjunctive. The rhetorical question in pāda b could be a present, but this is less certain (see 3.5.8, p 243).

B298⁷²⁵

arai *srukalyñe* † *cisa* *nta* *kca* *mā* *prāskau* [a]

INT death you:PERL ever INDF not fear:1SG.PRS/SBJ

pontas *srukelle* † *kā* *ñiś* *ṣeske* *tañ* *prāskau* [b]

all:GEN.PL die:PRS.GER why I always you:GEN fear:1SG.PRS/SBJ

s / *ārai* *ñi* *palsko* † *cisa* *prāskau* *pon* *prekenne* [c]

DEM INT I:GEN idea you:PERL fear:1SG.PRS/SBJ all time:LOC.PL

twe *ñke* *kalatar-ñ* † *apiś* *wārñai* *nreyentane* : [d]

you then bring:2SG.SBJ-1SG.SUFF Avīci until hell:LOC.PL

‘O death, I do not fear you at all: all have to die, why would I fear you always? O, this is my idea: «if I fear you in all times, then you will bring me to the hells, including the Avīci!»’

The present-subjunctive *aiśtrā* can probably be compared to the subjunctives of the type *māṃt tākaṃ* ‘so it will be’ in 3.5.6 (p 239), from the same text.

⁷²² <60> and <80> are here used as punctuation marks.

⁷²³ B336b6: *yāmā*.

⁷²⁴ B336b7: *weṣṣā(ṃ)*.

⁷²⁵ Verse: metre a-b: 5 † 7 (5 † 4+3), c-d: 5 † 8 (5 † 4+4).

AS12Hb2

arwer se ñäke kanthäke yäkwe • mäkte säswentse soy preke
 ready DEM now Kanthaka horse how lord:GEN son time
 aišträ •

know:3SG.PRS/SBJ

‘The horse Kanthaka [is] ready now! The son of the lord may know the [right] time [to leave].’⁷²⁶

In the conditional of general content below, both the protasis and the apodosis contain the present-subjunctive form *yäneṃ* ~ *yanēṃ*. Whereas the first in pāda 3b is certainly used as a subjunctive because it is conditional, additionally marked with *kr_{ui}* ‘if’, the second in pāda 3c must be used as a present because it is parallel to *mäskenträ*. In any case, in such a general conditional we would expect a present apodosis.

B295a4-5⁷²⁷

sportomāne sām̐sarne | šāññe śomo k_use kat⁷²⁸ ra : [3a]
 turn:PRS.PTC saṃsāra:LOC relative man who whose INDF
 šärmänmasā šeśśänmoṣ | alyaucempa yäneṃ kr_{ui} [3b]
 cause:PERL.PL bind:PRT.PTC one.another:COM.PL go:3PL.PRS/SBJ if
 nanauta(r)mēṃ [a5] šärmänmats | nāno yanēṃ waiptār
 disappear:ABS cause:GEN.PL again go:3PL.PRS/SBJ apart
 cai : [3c]
 DEM

šāññeṃ šāmnām̐nts eñälyñe | mā špā pälkoṣ mäskenträ 3
 relative:PL man:GEN.PL clinging not and look:PRT.PTC be:3PL.PRS

‘Who is in the turning saṃsāra the relative of someone else? When they are bound by causes, they go together with each other, [but] when the causes have disappeared they go separate ways again and have no eye for the clinging of their relatives [anymore].’⁷²⁹

3.8 MEANING

There is little difference between the use of the subjunctive in Tocharian A and Tocharian B. In main clauses, the basic meaning is future and in subclauses it is uncertainty.

⁷²⁶ For the translation cf. Couvreur (1953b: 282).

⁷²⁷ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

⁷²⁸ For *ket*.

⁷²⁹ Thomas (1957: 274).

3.8.1 THE TOCHARIAN SUBJUNCTIVE IN MAIN CLAUSES

In main clauses, the subjunctive principally denotes future events in both Tocharian A and Tocharian B. Direct support for this observation is the fact that in both languages the default rendering of Sanskrit futures is a subjunctive, and it is used in predictions (or neutral, pure futures). In addition, in Tocharian B the subjunctive is well attested in contexts where the idea of future is expressed. That I have found no comparable examples for Tocharian A is certainly to be ascribed to chance, as this language has no competing expression for future that Tocharian B does not have, and those contexts are not attested at all, i.e. there is no positive evidence that they would be expressed otherwise.

For first person subjunctives, a voluntative reading is often very likely, but this is without doubt the result of inference from the future meaning: if it is not evident that the first person does not want to carry out a future action, it is often possible to assume that (s)he actually wants to do so. In both languages, there are also clear non-voluntative examples. In Tocharian A, we find neutral predictions, which are probably lacking in Tocharian B by chance. In Tocharian B, there are good examples of events that are so unfavourable for the speaker that a voluntative reading can easily be excluded. Whether the lack of the latter type in Tocharian A is a matter of chance I do not know, but I have found no alternative means to express the same.

When examining the attitude of various other possible modal sources, namely subject, speaker and hearer, the result was mixed. For both languages, it was not difficult to find examples of events with a positive effect: actions to the benefit of the subject; wishes, which obviously relate to an event desired by the speaker; and promises, which normally turn out in a positive way for the hearer. Although in quite some instances a translation with an English *will*-future is unnatural, these uses can without difficulty be derived from a notion of futurity. First of all, they take place in the future, and second, in the relevant context the intended value can easily be deduced. Finding negative events for the same parameters was more difficult. I have found good examples in Tocharian A for the subject and for the speaker, but not for the hearer. In Tocharian B I have found only one good example for the hearer, and none for subject or speaker. It is not clear to me why these parameters could not be found, but it must be said that the total number of subjunctive clauses that qualifies in the first place is not overwhelming. I can only base myself on the results from the other study foci, namely that of the predictive future and the first person, to argue that the subjunctive is free of modal value with respect to these possible modal sources. There is a possibility that the difference between Tocharian A and B is significant, but the numbers are small and it is more likely that in fact we have to take the two together. Then both languages complement each other perfectly, which further suggests a non-modal future meaning of the subjunctive in main clauses.

The relationship of the optative to the subjunctive is sufficiently clear, and there is no difference between Tocharian A and B. Those few cases where the subjunctive is best translated as a wish all concern discourse situations where the “wish” is not a

deep-felt, serious wish (as with the optative), but more a formula to stimulate the hearer to some (mostly verbal) action.

The relationship between the present and the subjunctive is more delicate, and it seems that Tocharian A offers more examples of presents with future reference than Tocharian B. Striking similarities are found with the verbs ‘say’ and ‘give’, which in discourse situations are often used in the present to denote immediate futures. The same parameter is probably at the basis of the frequent occurrence of ‘go’ in the present in Tocharian A, but here it should be noted that in Tocharian B this verb has been left out of consideration completely because it forms a present-subjunctive. Why other Tocharian B verbs of motion, i.e. ‘come’ and ‘leave’, do not mirror the situation in Tocharian A, where these are more often in the present than other verbs, I do not know. The verb ‘become’ may also express futurity with a present form in both languages, but here the future meaning is inherent in the lexical meaning of the verb, which is made overly clear by its lacking a subjunctive. For this particular verb, the match with syntactically identical Sanskrit *bhav-* ‘become’ is striking, and “tense calquing” is certainly not excluded.

Understanding the nuances of the use of the subjunctive and other verbal forms, like the present and the optative, in rhetorical questions seems hardly feasible. There are only few examples in the various different moods and the semantic differences can only partially be deduced from those established elsewhere. Suffice it to say that rhetorical questions must be studied separately as they deviate too much, and that they can in no way be used to argue against the general picture emerging from positive clauses.

3.8.2 THE TOCHARIAN SUBJUNCTIVE IN SUBCLAUSES

The subclause uses of the Tocharian A and B subjunctives can best be unified as expressing uncertainty. The two languages behave very similar, but various subtypes can be distinguished, of which the conditional is probably the most salient.

In conditional sentences, the subjunctive may denote realistic protases and future apodoses. Thus specific conditionals with future reference have typically a subjunctive protasis and a subjunctive apodosis, e.g. *If it rains [sbj.] tonight, you will need [sbj.] an umbrella*. Generic conditionals have a subjunctive protasis, but a present apodosis, e.g. *If it rains [sbj.], the street gets [prs.] wet*. Exceptions are mainly of two types: 1) specific apodoses with a present, which can be compared with the sporadic use of the present for the future in main clauses, or 2) inferential conditionals. In inferential conditionals, the apodosis results from the protasis through reasoning, and the tenses and moods are variable, just like in English, e.g. *If the streets are wet, it must have rained*. Inferential conditionals are sporadically attested in Tocharian B, but not in Tocharian A – presumably by chance. Past, counterfactual and implausible conditionals are expressed with the optative and with periphrastic constructions.

Other subjunctive subclause types are eventual, in which the realisation of an event is given as uncertain; iterative, in which an event takes place several times; indefinite, in which the event is not exactly known; and concessive, in which an event is given as irrelevant. All these types are well attested for both languages and in principle they have a present in the main clause. In both languages, a subjunctive clause may also express the goal of a main clause, for instance an imperative clause, e.g. *Make your homework so that you can pass your test*. Only in Tocharian A, a subjunctive subclause is attested in comparisons, e.g. *It looks like it were a fashioned or painted figure*. Since English *would* and *were* etc otherwise often render Tocharian optative clauses, one might have expected an optative in such comparisons (like in Tocharian B).

3.8.3 TOWARDS A UNIFIED MEANING

As the meaning of the Tocharian subjunctives in main clauses is future and that in subclauses is uncertainty, I must quote Krause's description of the meaning of the Tocharian B subjunctive again:

“Der Konjunktiv steht in Haupt- wie in Nebensätzen mit der Funktion der Vermutung, Erwartung, Annahme, also der Ungewißheit, woraus sich die Funktion des reinen Futurs entwickelt hat, sowie als Jussiv.” (1952: 30)

Although I disagree in some points, his idea is generally correct: if any of the two notions future and uncertainty should be more basic, I would opt for uncertainty and thus follow Krause in his view that the future meaning has developed from that of uncertainty.

However, I cannot agree with his claim that any of the notions presumption, expectation and assumption is a basic component of the subjunctive in main clauses, nor that it expresses uncertainty there. Of course the future is always less certain than the present and the past, and the inference of uncertainty is easily made, but the subjunctive is used for futures that are in no way uncertain, too, and uncertainty nuances find their own explicit form of expression, for instance by means of particles. Also the jussive use he distinguishes – for main clauses only, as is clear from the example sentences that follow – is only inferred from the notion of future, as it can be shown to be in explicit conflict with other derived notions.

Krause's formulation is also imprecise as far as subclauses are concerned. Whereas the general characterisation “uncertainty” covers the meaning of the subjunctive there very well indeed, and assumption can successfully be identified with conditionality, I think, expectation and presumption are no recognisable semantic features of the subjunctive in subclauses. His wording is ambiguous, I would say, as to whether he thinks that future and jussive should also be uses in subclauses, but in any case, these are certainly absent.

My reason to follow Krause in taking the uncertainty meaning as primary, and to derive the future from it, is that there is no overlap between uncertainty and future in subclauses, whereas future and uncertainty can be unified for main clauses. In other words, the subjunctive has no time reference at all in subclauses, and the difference between present and future tense is simply left unmarked. Some of the subclause types describe future events indeed, but they are presented as possible or uncertain, not as future. Other subclause types have clear present reference that is incompatible with future tense.

On the other hand, since future events are always less certain than present or past events, one possible inference about an event that is presented as uncertain is that it has not yet taken place. Indeed, very few main clause subjunctive types are incompatible with an uncertainty reading, and the flexible way in which the subjunctive can be combined with explicit markers of uncertainty further confirms this. However, it can hardly be overemphasised that uncertainty is not inherent in the main clause subjunctive, as there are many cases where uncertainty clearly is subordinate at most, and in the predictive future type it is even incompatible with it.

To summarise, the uncertainty meaning and the future meaning of the Tocharian subjunctive are evidently linked, but they cannot be subsumed under one unified meaning on the synchronic level: the subclause subjunctive is not a future and the main clause subjunctive does not denote uncertainty. At a seemingly shallow historical level, it is probably the future meaning that derives from that of uncertainty.

3.8.4 THE TOCHARIAN SUBJUNCTIVE AND ASPECT

There seems to be no special syntactic correlation between the Tocharian subjunctive and aspect. Even the present-subjunctive, a considerable category in Tocharian B, shows no systematic correspondence with aspect. It harbours a fair number of verbs with a durative Aktionsart, but next to many that are explicitly non-durative (especially among causative verbs, but also among non-causatives); worse, there are also many non-present-subjunctives with a durative Aktionsart. Thus, any correlation based on the Aktionsart of the present-subjunctive must be searched for by means of diachronic reconstruction – for a synchronic analysis the idea is simply untenable.

The present and subjunctive stems are rarely found in a simple contrast: mostly, they are in complementary distribution. If we take derived infinite forms, the infinitive shows no contrast between present and subjunctive stem because in Tocharian A it is formed from the present stem only, and in Tocharian B from the subjunctive stem only: there is no contrast between a present infinitive and a subjunctive infinitive. The same is true of the verbal noun, the present participle, the TB verbal adjective in *-mo*, and the privative. While most agent nouns are formed from the present stem, there is one formed from the subjunctive stem in Tocharian B, too. However, I have not been able to find any difference in usage between this subjunctive agent noun and the present agent nouns.

The only derived form where present and subjunctive stem are in contrast is the gerund: both languages exhibit a systematic contrast between a present and a subjunctive gerund. The meaning of these gerunds is clearly distinct, but in my view it does not have anything to do with aspect: the present gerund expresses necessity and the subjunctive gerund possibility. I do not mean to exclude that this difference can be explained from an earlier difference in aspect, but as such, it is clearly one of mood, which is completely in line with the difference in meaning between the present and subjunctive finite categories.

If we continue our indirect approach, we arrive at the contrast between imperfect and optative, which in Tocharian B is morphologically just a difference between the present stem for the imperfect and the subjunctive stem for the optative, and in Tocharian A a combined contrast between the present stem and past endings for the imperfect and the subjunctive stem and present endings for the optative. However, the meanings of the imperfect and the optative are difficult to compare because they differ in several different domains, the imperfect being an imperfective past tense and the optative a deontic mood, mostly with non-past reference. As the imperfect is never modal, it is probably best to compare it with the one function of the optative in past contexts: the iterative past.

In the iterative past, the past tense is expressed by the imperfect, which is the imperfective past tense used for background information and repeated events. If such an iterative imperfect clause has a subclause next to it, that subclause is in the optative. It is not completely evident how we should interpret the different contributions of imperfect and optative. Without doubt, the imperfect provides the past reference, as the optative is not otherwise used in past contexts. It also invites the iterative reading: first, it can be iterative without optative subclause, too, and second, it is the finite verb of the *main* clause. It seems that not much is left for the optative, apart from marking the subclause. If it should add any meaning of itself, it must be the indefinite or irrelevant number of events in the subclause. Although in this construction the imperfect clearly has imperfective aspect indeed, nobody will be able to maintain that the optative expresses the opposite, perfective aspect. It is just as iterative, and consequently as imperfective, as the imperfect, but contains an element of indefiniteness in addition.

The same contrast is found for the finite present and subjunctive themselves, but in this case without past reference. The distribution of functions is completely parallel: the iterative clause is expressed by the present, and therefore the present can be said to be imperfective. However, the preceding subjunctive subclause is in no way less imperfective, and it expresses, just like the optative, that the number of events is unknown or irrelevant.

As in other types of subclauses present and subjunctive are distributed according to parameters totally different from aspect, namely principally certainty and uncertainty, it makes no sense to look for evidence for a perfective use of the subjunctive there. However, there are some phenomena in main clauses that could in fact point to aspect.

The point of attack is of course the use of the present for future events: the clear default expression for future is the subjunctive and that for present is the present (the subjunctive is never used for the present tense in main clauses). If we exclude the “technical” future, i.e. events that are so close to the moment of speaking that a present can be used without any risk of ambiguity, there seem to remain two classes of exceptions: events at an undefined point in the future, and events stretching from the moment of speaking into the future. Both of these uses are compatible with imperfect aspect: in the first, beginning and end point are undefined because the whole event is undefined, and the second has no defined end point.

However, if we reverse the question and ask ourselves why the subjunctive is not used in those cases, the answer can hardly be given in terms of aspect, since the subjunctive is abundantly attested for events without clear beginning or end points. Rather, it seems to be just a matter of tense: events starting at the moment of speaking evidently have present reference as a part of their meaning, and of the undefined future it can also be said that it is just not expressed by the subjunctive because it is not a clear future.

Likewise, the contrast between inhibitive and preventive negative commands reminds of a difference in aspect (as found e.g. in Vedic, see Hoffmann 1967: e.g. 105), but it can also be explained otherwise. One could argue that the imperfective present is used for events that have already started (inhibitive), while the perfective subjunctive is used for events that still have to begin (preventive). However, a tense interpretation is at least as good: in a negative command with present reference (inhibitive) a present is used, whereas in a negative command with future reference (preventive) a subjunctive is used.

In conclusion, there is no evidence for a syntactic perfective use of the subjunctive. The present is often imperfective indeed, but the subjunctive is not its aspectual counterpart. In most uses, an aspectual difference is simply not there, and in the few cases where something with aspect seems to be going on, better explanations present themselves.

4 ORIGIN

The aim of this chapter is to trace the origins of the Tocharian subjunctive in Proto-Indo-European; both form and meaning are to be explained, as well as the question whether the subjunctive continues one or more Proto-Indo-European categories, or whether it is a purely Tocharian creation.

4.1 INTRODUCTION

The archaic appearance of the Tocharian verb is miraculous in view of the dramatic and eventful prehistory of the language.

The three stop series **T*, **D*, **D^h* merged almost completely, leaving only a single series transcribed with voiceless stops; palatovelars and velars merged, and took some labiovelars with them; almost all final consonants were lost; in interconsonantal position, all laryngeals became *a*; the short vowels **i*, **e* and **u* merged with the vowel of syllabic resonants into *a*, the first two causing regressive palatalisation; long **ē* and short **o* eventually merged into *e*, the former causing palatalisation; the (secondary) vowels **ā* and **ō* must have merged in many contexts. In addition, all hiatus, including recent instances from lost intervocalic glides, were resolved with contraction; vowels were subject to affection, syncope and apocope; palatalisation caused the rise of new consonants, but as the palatalisation system largely broke down again, more mergers followed; consonant clusters were epenthesised or simplified. Tocharian A, generally preserving consonant clusters a bit better, underwent further simplifications of the vowel system, with apocope of final *e* and *o*, and merger of the two into *a* in many other positions.

Facing such heavy changes in its phonology, any language would be compelled to reorganise its morphology. Yet, the Tocharian verb has a full inventory of different stems, endings, and base verbs and derived verbs.

This is the problem with Tocharian. At first glance, the verb is on a par with, for instance, Latin, in as far as the categories expressed are concerned. However, hardly anything is so old that it can be reconstructed mechanically: there is *always* a good deal of analogy involved. Apart from arguments of a general nature, as those above, the thick layer of restructurings and repairments is betrayed by occasional mismatches between the two languages that can only be understood with the assumption of sound laws that were undone in the majority of cases. Yet a much more alarming indication is the rigid way in which so many verbs pattern: it is the superficial regularity of the system that shows that it is the result of thorough mending. The challenge of Tocharian historical morphology is to find weak points in the system.

Below, I will recount the most important theories on the origin of the Tocharian subjunctive. Although Lane's 1959 article is not an independent piece of work, as it uses insights of e.g. Pedersen (1941), van Windekens (1944) and Couvreur (1947), it was the logical point of departure for the bulk of later studies. As its title *The formation of the Tocharian subjunctive* already shows, its merit is first and foremost that it treats the formation of the subjunctive in a reliable and lucid way because Lane is "of the opinion that in comparative linguistics we should attempt to establish an 'Urform' before we worry about its 'Urbedeutung'" (1959: 179), which was a major step forward especially compared to Pedersen. Since scholars have often repeated theories, or altered them only slightly, the sections below are structured according to the possible origins.

4.1.1 SUBJUNCTIVE

Following Pedersen (1941: 191-192) and Hahn (1953), Lane assumed that Proto-Indo-European had no subjunctive, or at least "in that dialect of Indo-European which we may call Pre-Tocharian, there was no subjunctive formally distinguished from the present indicative" (1959: 179). Yet, whereas some scholars have not taken a clear stand on the matter (e.g. Adams 1978: 277), others do derive some Tocharian subjunctive formations from original Proto-Indo-European subjunctives.

The best candidate for an old subjunctive is probably the subjunctive of the Tocharian verb for 'come', for which a pre-form $*śam^{ʔ/e-}$ can be reconstructed (see 4.3.1, p 351), apparently a direct match of Ved. *gámati* (so e.g. Pinault 2008: 592; Kim 2007b: 190). In view of the high degree of irregularity of the verb 'come' in Tocharian and the isolated type of its subjunctive, it is likely to be old. Being the devil's advocate, one could try to connect $*śam^{ʔ/e-}$ with the $*ie/o-$ -present represented by Gk. βαίνω and Lat. *veniō*. To my knowledge, nobody has ever argued for such a derivation, and for good reasons: 1) even though a palatalised $*m̥$ loses its palatal feature in the daughter languages, the $*i$ would probably have left a trace in Tocharian, yielding $**my$, and 2) the zero grade $*g^w m-i e/o-$ of the Greek and Latin formations is incompatible with the palatalised initial of the Tocharian, which can hardly be secondary.

Less certain because they form a category, but probable nevertheless, is the $ʔ/e-$ -subjunctive of *s*-transitives (usually called *s*-causatives, class 8). Although details vary, this connection is supported by a relatively large number of scholars, e.g. Pinault (2008: 592), Kim (2007b: 190), and Ringe (2000: 132-133).⁷³⁰ While I consider this derivation probable, it must be stressed that it involves a good deal of additional argumentation on the *s*-present and the *e*-present. The $ʔ/e$ -subjunctive is always

⁷³⁰ Van Windekens (1982: 214) can be added, but his account is complicated. Whereas these subjunctives "sont tous des conjonctifs thématiques secondaires", whose "origine première [...] doit être située dans des thèmes de prétérit", he also claims that the type "a pu survivre [...] dans les conjonctifs radicaux athématiques" (l.c.).

found next to an *s*-present, so that its interpretation is dependent on that of the *s*-present, which is itself disputed. Further, an intransitive *e*-present verb (or sometimes an *o*-present verb) is often found next to it, which was even thought to be primary (see e.g. Krause and Thomas 1960: 174). Evidently, a theory that derives the ²/_e-subjunctive from an old Proto-Indo-European subjunctive would work much better if the intransitive *e*-present verbs were secondary and the *s*-transitive verbs primary.

According to Hackstein (1995: 232-233, 240-241; see also Ringe 2000: 132, Kim 2007b: 190), an isolated inherited subjunctive is preserved in B594a1 /// ·k(↘) *k·ntā[rñ]*· [sā] ///, so read by Sieg and Siegling (1953: 379). Even if this reading were secured,⁷³¹ it certainly leaves room for more interpretations than just (*akāl*)*k k(a)ntār ñ(i)* ‘my wish will be fulfilled’, and even if that restoration were correct, the form can only be interpreted with morphological arguments, “denn der sehr fragmentarische Kontext entzieht sich als Deutungsgrundlage” (Hackstein 1995: 232). In the unlikely event that the subjunctive *k(a)ntār* B594a1 is correctly identified, it need not be old. Hackstein argues that it reflects a Proto-Indo-European subjunctive **ǵenh₁-e/o-* with **ñt* > *nt*, but it could also be a backformation from the present {*kənś^{ss}/ske-*} on the basis of the model prs. {*awnś^{ss}/ske-*} : sbj. {*awn-*} of *awn-* ‘hit’. After all, the regular subjunctive is {*kəně-*}, but *kən-* is the only verb of this small class with a *ss²/ske-* present instead of the regular *ss²/se-* present (only *tām-* ‘be born’ has something similar, a *nə^{ss}/ske-* present, but it displays several other deviations from the type): an adaptation of the pattern is therefore to be expected. In sum, the combination of a severely abraded tiny fragment and a beautiful hapax legomenon that proves the inheritance of an isolated old subjunctive is too much of a coincidence: the whole idea is best abandoned completely.

Strikingly, it has also been argued that certain Tocharian presents reflect Proto-Indo-European subjunctives. For instance, Jasanoff has argued that the Tocharian *s*-present goes back to a subjunctive of the *s*-aorist (1987: 101-102; 2003: 181-182), and Ringe (2000: 129-130, 136; Kim 2007b: 190) interprets two ²/_e-presents as original subjunctives: Tocharian B *l̥ə^{ss}/ke-* ‘lie’ and *kə^{l̥}/e-* ‘stand’. The history of the *s*-present is too complicated to give even a brief account here, but it is argued in 4.5.6 (p 419) that it rather goes back to the **-sk^e/o-* present suffix. The reason why Ringe wanted to derive ‘lie’ and ‘stand’ from a subjunctive is obviously the ²/_e-suffix, for which alternative explanations are available. In any case, it is semantically difficult to derive Tocharian presents from older subjunctives and it runs counter to the well established development of Proto-Indo-European presents to Tocharian subjunctives; with Adams (1994: 4), “This Worm of Ourobours scenario is hardly compelling.”

⁷³¹ It can hardly be overemphasised that the reading is *not* secure, witness the brackets. It is even very unlikely that <*rñ*> is correct; I would rather opt for <*ññā*>. <*sā*> could also be <*ṇā*> – among others – and as far as can be discerned, it is followed by an *aḱṣara* in *virāma*.

In sum, only for a small number of Tocharian subjunctives has it been argued that they derive from Proto-Indo-European subjunctives. Even if in some cases such a derivation is necessary indeed, it cannot be the explanation of the subjunctive category as a whole: many Tocharian subjunctives just have no $\text{'a}/\text{e}$ -suffix.

4.1.2 OPTATIVE

The Proto-Indo-European optative with the suffix $\text{*}-\text{ieh}_1\text{-}$ $\sim$ $\text{*}-\text{ih}_1\text{-}$ is directly inherited in the Tocharian optative, as commonly agreed. Nevertheless, Lane (1959: 166) argued that it is also reflected in one Tocharian subjunctive class: class 4 of Tocharian B with the suffix $\text{'ay}^\text{o}/\text{e-}$. There are two problems with Lane's derivation: synchronically, the suffixes are different, namely *sbj.* $\text{'ay}^\text{o}/\text{e-}$ vs *opt.* 'ay- (see also 4.8.1, p 469), and the meaning of the Tocharian subjunctive is different from that of the Proto-Indo-European optative. Although the semantic difference is perhaps not insurmountable, it adds to the formal problems. Last but not least, it is completely unclear why the optative suffix should have taken on subjunctive function only in class 4, or the other way round, what made class 4 adopt the optative suffix. In 4.8.1 (p 469), the $\text{'ay}^\text{o}/\text{e-}$ -subjunctive is rather derived from the present.

4.1.3 PRESENT

In view of the formal similarities between the Tocharian subjunctive and present, it is not surprising that it is often argued that the Tocharian subjunctive goes back to Proto-Indo-European presents. However, the idea that *all* Tocharian subjunctives reflect earlier presents and that the contrast between present and subjunctive is a recent innovation of Tocharian cannot be maintained, pace Lane (1959: 179), who argues that:

“in that dialect of Indo-European which we may call Pre-Tocharian, there was no subjunctive formally distinguished from the present indicative. In Proto-Tocharian such a distinction was only beginning to be made, as reflected by certain agreements in the two dialects. The distinction, so far as it existed, was made by using an alternate present formation as subjunctive.”

In particular, this view is incompatible with the fact that there are verbs with a contrast between subjunctive and present where the present clearly goes back to an original rather than a secondary present, as for instance in the nasal presents. If Lane had been right, we would rather have expected that a typical present category such as the nasal presents had ended up as subjunctives with derived presents.

A stand similar to Lane's is taken by Adams (1978), who reconstructs a pre-stage of Tocharian with an independent iterative formation in $\text{*}-\text{sk}^\text{e}/\text{o-}$ that yielded presents, while pushing original presents into subjunctive function. However, he leaves open the possibility that the existence of the creation of the subjunctive predated this present $\rightarrow$ subjunctive shift: “If the category was not inherited from Indo-European,

this development led to the addition of the subjunctive to the moods of early Common Tocharian” (1978: 277).

Even though one would have wished for somewhat more precision, Jasanoff follows Lane’s ideas, on the evidence of his statement that “The subjunctive in Tocharian is widely recognized to be a repository of older indicative forms that have acquired modal or future value” (2003: 161).

Although Lane’s claim must be wrong in its most radical variant, a large number of individual subjunctives as well as some subjunctive classes have been derived from original presents indeed.

A striking case is the reduplicated subjunctive *tätta-* in Tocharian B, which is evidently cognate with Gk. τίθημι ‘put’ and Ved. *dád dhāti* (e.g. Adams 1978: 279). Further, there are clear cases of nasal subjunctives with secondary presents, for instance the famous case of the Tocharian B subjunctive *kərná-* ‘trade’ (with the secondary present *kərná^{ssə}/skē-*), which can be equated with Ved. *krīṇāti* ‘buys’, OIr. *crenaid* ‘id’ etc, see for instance Jasanoff (2003: 161). However, it must be pointed out that, contrary to what Jasanoff suggests, this is an exceptional case (cf the correct formulation of Kim 2007b: 192) for which a good explanation is available (see 4.6.9, p 448). Along the same line of reasoning, we may add all subjunctives with the typical present suffix *-sk* that have an *sk*-present (i.e. with *sk_sk*, as in TB *yaskaskemar* ‘I beg’) next to them, see in particular Hackstein (1995: 167-202).

Apart from such incidental cases as listed above, the class of *e*-subjunctives (TEB class 3) has been argued to be of present origin; see for instance Lane (1959: 165), who identifies it with the *e*-present, which is identical in form. Likewise, present origin of the Tocharian A *ñā/a*-subjunctive class (TEB class 7) has been argued for, see for instance Lane (1959: 176), Hilmarsson (1991b), or Kim (2007b: 192). In addition, I will argue that the Tocharian B *i*-subjunctive (TEB class 4) in origin goes back to a present formation (4.8.1, p 469; rather than the optative, as argued by Lane, see 4.1.2 above, p 332).

Last but not least, it is argued in 4.4 (p 377) that present-subjunctives go back to presents. However, as I argued extensively in 2.6 (p 94) and 2.7 (p 117), these present-subjunctives are best analysed as presents with zero-derived subjunctives. Thus, if they can be called subjunctives at all, they derive from presents at a very shallow reconstruction level and they cannot be used as examples of a shift present → subjunctive; nothing is shifted, the usage of the present has only been extended.

4.1.4 “PRESENT-SUBJUNCTIVE”

Although he does not treat the origin of the Tocharian subjunctive in particular, the 2000 article of Ringe deserves a separate discussion because he makes interesting observations and claims about Tocharian and the Proto-Indo-European subjunctive. Investigating Tocharian thematic presents and subjunctives, he found that Tocharian has relatively few simple thematic presents and subjunctives that continue Proto-Indo-European stem formations. From the fact that in Tocharian thematic subjunc-

tives are better represented than thematic presents, he drew far-reaching conclusions about the structure of the Indo-European family tree and the development of the Proto-Indo-European verbal system.

According to Ringe, Proto-Tocharian original simple $\text{'}\text{e}$ -presents, essentially only $\text{'ak'}\text{'}\text{e}$ - 'lead', $\text{'p}\text{'ar'}\text{'}\text{e}$ - 'carry' and $\text{'saw'}\text{'}\text{e}$ - 'live' are outnumbered by $\text{'}\text{e}$ -subjunctives such as $\text{'k'wam'}\text{'}\text{e}$ - 'come', $\text{'l}\text{'awk'}\text{'}\text{e}$ - 'shine', $\text{'w}\text{'ayk'}\text{'}\text{e}$ - 'drive off', and other members of the *s*-causative class (TEB present 8, subjunctive 2). Since Hittite has no simple thematic presents nor subjunctives at all, while thematic presents are numerous in all other branches of Indo-European, he claimed that Tocharian may represent a transitional phase in which the thematic suffix was developing. In his view, this supports the *communis opinio* that after Anatolian, Tocharian was the first branch to split off from the rest of Proto-Indo-European.

Whereas it is likely that Tocharian is indeed archaic in having preserved so few simple thematic presents, Ringe's conclusion that the function of the thematic suffix was originally only subjunctive is not supported by the Tocharian evidence. The fact that there are more $\text{'}\text{e}$ -subjunctives than $\text{'}\text{e}$ -presents need not be significant because the former are part of a relatively frequent, rigid pattern that may ultimately result from a small common source (see 4.8.4, p 478). Moreover, it is unclear how the semantic development from subjunctive to present should have proceeded; the opposite direction, as defended by e.g. Renou (1925b) and Kortlandt (1983a), seems much more attractive.

4.1.5 PERFECT

Since Lane's groundbreaking 1959 article on the subjunctive and Cowgill's unification of the *e* : *a* gradation in $\text{'}\text{e}$ -root subjunctives and the *a* : *a* gradation in 'a -root subjunctives (1967), the Proto-Indo-European perfect has often been considered the most likely source of the Tocharian subjunctive. The argument is based on two points of comparison, as put forward by Winter (1994a: 305-308; cf also e.g. Eypórsón 1993; Hackstein 2004a: 92-93; Kim 2007b).

The first point concerns the gradation of the Tocharian subjunctive: since its gradation patterns can be unified as an original *e* : *a* without initial palatalisation, it is argued that this must reflect 'o : $\text{'}\text{e}$ gradation in Proto-Indo-European. The PIE perfect displays exactly these root grades with the same distribution, namely *o*-grade in the singular and $\text{'}\text{e}$ -grade in the plural (Lane 1959: 160; Adams 1978: 278, 281; van Windekens 1944: 257; 1982: 192-193). The second point involves the initial accent found in many Tocharian B subjunctives, which is exceptional compared to other verbal and nominal formations. Winter argues that the accent was automatically fixed on the second syllable of each word at a pre-stage of Tocharian B, so that the exceptional initial accent of the subjunctive must be explained with an "extra first syllable" that was lost *after* the accent was fixed: a reduplication syllable as found in the Proto-Indo-European perfect.

The following extract from Winter's article contains these two main arguments:

“Es ist seit langem bekannt, daß der sogenannte ‘Konjunktiv’ der tocharischen Sprachen dort, wo sich Ablaut beobachten läßt, die Abstufung des indogermanischen Perfekts zeigt: im aktivischen Singular findet sich die Widerspiegelung der indogermanischen *-o-Stufe, im aktivischen Plural und im gesamten Mediopassiv hingegen die der indogermanischen Schwachstufe. [...]”

Für die Formen von Tocharisch B, für die sich Aussagen über die Akzentstelle mit großer Sicherheit machen lassen, gilt nun, daß Formen des ‘Konjunktivs’ der ablautenden Paradigmen den Akzent grundsätzlich auf der Anfangssilbe tragen. Nimmt man Krauses Annahme (1952:10) ernst, daß der Wortakzent in Tocharisch B auf die zweite Silbe eines Wortes falle (retrahierte Akzente in zweisilbigen Formen können hier außer Betracht bleiben), und setzt man für mehrsilbige Formen mit Anfangsakzent zugrundeliegende morphophonematische Bildungen mit Reduplikation mit *|Ci-| an, deren *|-i-| in offener Silbe schwinden mußte, so ergibt sich, daß die ablautenden ‘Konjunkte’ mit Formen des indogermanischen Perfekts nicht nur in der Ablautstufe, sondern auch in der zur Erklärung des Akzentverhaltens anzusetzenden Reduplikation übereinstimmten.” (1994a: 305-306)

Both arguments start from important non-trivial assumptions. First of all, it is assumed that Tocharian non-palatalising *e*-grade directly reflects PIE **o*-grade and non-palatalising *a*-grade PIE Ø-grade, despite the high functional load of palatalisation in Tocharian morphophonology, which implies that it was productive and therefore possibly secondarily present or absent in specific contexts. Secondly, although the Tocharian B accent must derive from a simple system with automatic accent assignment, as shown by its great simplicity, it is synchronically morphological (*not* phonetic) in the Tocharian B subjunctive, which proves that it was generalised. This raises the question whether other sources are conceivable, too. However, these counterarguments allow for alternative solutions at most: as far as the formal side is concerned, Winter’s reasoning is in itself fully compatible with the data.

Nevertheless, there are serious problems of a different kind that the perfect theory has to address: the function, the endings, and the stem pattern.

As shown in chapter 3, the main function of the Tocharian subjunctive is to denote future events in main clauses and uncertain events in subclauses. Conversely, the Proto-Indo-European perfect had neither of these two functions, but rather an aspectual function: it had present reference, denoting a state resulting from a previous event. In many Indo-European languages, the perfect has developed into a past tense (a development comparable to that underlying the difference between the English perfect, e.g. *I have done* and the German perfect, e.g. *ich habe gemacht* ‘I did’), but among the Indo-European reflexes of the perfect, the functions of the Tocharian subjunctive are not found. Consequently, the derivation of the Tocharian subjunctive from the Proto-Indo-European perfect is in need of an explanation for the alleged change in function. Since there are no functional overlaps between the two categories, the only possible path seems to be that the resultative aspect of the perfect was bleached out in favour of its present reference, and that it was pushed to its Tocharian modal function by the present, which must have existed next to it all

the time. How this might have happened is unclear to me, but in any case there is no concrete evidence within Tocharian *that* it actually happened.

Another problem of the function of the Proto-Indo-European perfect and the Tocharian subjunctive concerns valency. Whereas the Tocharian grading subjunctive is typically found with transitive verbs as found in the Tocharian present classes with an *s*-suffix or an *n*-infix, the Proto-Indo-European perfect denoted a state and it was typically intransitive; verbs that were otherwise transitive could be used in an absolute way, without object:

“le parfait note l’état acquis et le mouvement effectué: «il est (actuellement) endormi, irrité, il est arrivé (et il est ici)». Cette valeur apparaît ainsi de préférence là où le verbe est par nature intransitif. Mais elle n’est pas exclue là même où le présent comporte un objet: en ce cas le parfait, conformément à la liberté d’emploi des racines indo-européennes, figure d’une façon absolue.” (Renou 1925a: 7-8, based on Wackernagel 1904)

Only a small category of perfects could be used transitively, typically “Verbes signifiant «avoir, posséder, abandonner, faire»” (Chantraine 1927: 11). Thus, the Proto-Indo-European perfect does not in any way match the marked preference of the Tocharian grading subjunctive for transitive use.

As will be shown in section 4.2 (p 341), the Tocharian present endings, which are also found with the subjunctive, derive from a mixture of the Proto-Indo-European primary and secondary endings of the present-aorist system. By contrast, the endings of the Tocharian preterite derive from those of the Proto-Indo-European perfect. This suggests, evidently, that the Proto-Indo-European perfect became a past tense in Tocharian after all (see above), since it has supplied the endings of a past tense. Likewise, the present-aorist origin of the endings of the Tocharian subjunctive would in the first place suggest an origin of the subjunctive in the present-aorist system, not in the perfect. Thus, if the subjunctive were to be derived from the perfect, we seem to be obliged to assume that *both* the subjunctive and the preterite derive from the perfect, and that next to the “past tense” perfect with perfect endings a second perfect with present-aorist endings was created, which was to become the subjunctive.⁷³² Subsequently, the perfect features, namely reduplication and gradation, were given up in the past perfect, but preserved in the subjunctive perfect. Although heavy restructurings have certainly taken place, the developments sketched above are complicated and implausible.

The perfect theory is weak in that it makes no predictions about the stem patterns of the subjunctive: it does not explain the distribution of the grading subjunctive, neither compared to other subjunctive types nor compared to the other stems of verbs with a grading subjunctive. Yet, the grading subjunctive is not an independent type, as shown in chapter 2: it is tightly matched to specific present and

⁷³² The assumption that the Tocharian subjunctive continues the Proto-Indo-European perfect and the preterite continues the aorist only makes matters worse.

preterite types in one-to-one correspondences. As far as I know, nobody has argued that the *s*-preterite (always found next to an $\partial|\emptyset$ -root subjunctive) or the $\partial|a$ -root preterite (next to the $\partial|a$ -root subjunctive) have a special correlation with the perfect, nor, for that matter, $^{s2}/_{se}$ -presents or *na*-presents, the respective present types.

On top of these three problems, there is also a difficulty on yet another level: there is virtually no comparative evidence of individual grading subjunctives matching old perfects; to use Jasanoff's term, there are no "word equations" in support of the perfect theory. It is my firm belief that comparative morphology should compare morphological types rather than set up etymologies, certainly with a language with so many rigid patterns as Tocharian. Nevertheless, a morphological explanation additionally supported by word equations is clearly preferable to one based on morphological types only.

4.1.6 *MOLŌ*-TYPE

As a variant of the perfect theory, Jasanoff has argued on several occasions that the Tocharian grading subjunctives derive from a slightly different type, which he mostly calls the "*molō*-type" or the "*h₂e*-conjugation" (e.g. 1992; 2003: 161-165 and passim). In brief, the *molō*-type is identical to the traditional perfect in its endings, in its *o*-grade in the singular, and in being a present, while it is different in having *e*-grade in the plural and lacking reduplication.

A full discussion of the *molō*-type is clearly beyond the scope of this study, but two points may be noted. First, in spite of Jasanoff's arguments (2003: 228-233), Ved. *veda*, Gk. οἶδα 'knows' etc (LIV2: 665-667) proves the existence of a perfect type without reduplication, as is also suggested by the two 3pl. endings *-r(s)* and *-ēr*, which must reflect a difference in accent patterns. If the difference between the *molō*-type and the traditional perfect is not the presence or absence of reduplication, the *e*-grade in the plural of the *molō*-type becomes extremely important, should the two types be different at all. This leads us to the second point: the evidence for *e*-grade in the plural is very scanty indeed, certainly in view of Kloekhorst's interpretation of the Hitt. *šākk-* ~ *šekk-* class (2008b: 141-143). He convincingly shows that the verb *šākk-* ~ *šekk-* itself was originally of a different type, namely *šākk-* ~ *šakk-*, thus offering no proof for an alternation *o* ~ *e*. The *e*-grade of the remaining verbs with *ā* ~ *e*, which all have a resonant in the root, is due to restoration of the Schwebeablaut in the plural, i.e. <re> (according to Kloekhorst, phonologically /ri/) replaces older **ar*. In fact, this weak point is inherent in Jasanoff's theory when he admits that "replacements of the type *TérT-* → *TRT-*' are common in weak stems everywhere in the family" (1992: 143; similarly also elsewhere).

As far as the Tocharian subjunctive is concerned, the *molō*-type theory differs in only one important aspect from the perfect: the lack of reduplication. As explained above, one of Winter's *two* arguments to derive the subjunctive from the Proto-Indo-European perfect was its initial accent, which would preserve the original

reduplication syllable in an indirect way. Unfortunately, this point is not addressed by Jasanoff.⁷³³

Thus, the *molō*-type theory has no advantages over the perfect theory: it does not account for the initial accent, the initial palatalisation expected from *e*-grade in the plural is not found, and it offers no better explanation of the meaning of the Tocharian subjunctive.

4.1.7 PERFECTIVE PRESENT

As recounted in 3.1.1 (p 155), Couvreur and several other scholars have argued for an analysis of the subjunctive as a perfective variant of the present. This analysis was in all cases supported with arguments from morphology instead of syntax. In my discussion of the syntactic evidence in 3.8.4 (p 325), I have arrived at the conclusion that there is no evidence in the syntactic use of the subjunctive that proves or even suggests that it is a perfective present. However, I also suggested that the merits of this theory are rather to be expected on the diachronic than on the synchronic level.

Crucial in the application of the “perfective present” theory is the origin of the perfective stem. In principle, I see two possibilities: 1) the perfective present is a secondary result of the creation of new imperfective present, or 2) the perfective present is a present formed from an originally perfective stem. Unfortunately, in most of the accounts that I have been able to trace (Couvreur 1947: 73; Winter, e.g. 1982: 9, 1994a: 286-287; Hackstein 2004a: 90-92; Pinault 2008: 570), this point was not addressed explicitly.

The first option departs from a development comparable to that in Turkish, compare for instance the Uy. “uncertain present-future tense” in *-r-*, e.g. *maṇarmān* ‘I will probably walk’ with the “present progressive tense” in *-wati-*, e.g. *küliwatimān* ‘I am laughing’ (de Jong 2007: 129, 131): the former is the original present tense, usually termed “aorist” in the literal sense of Gk. ἀόριστος ‘indefinite’, while the second is formed with an extra imperfective suffix. Evidently, this interpretation requires that the Tocharian subjunctive reflects the Proto-Indo-European present, which is certain for a large number of instances, but untenable as an explanation of the subjunctive as a whole (see 4.1.3, p 332). Based on the typological framework developed by Haspelmath (1998), this option is discussed in detail in 4.9.2 (p 483).

The second option leaves room for the Tocharian present to derive from the Proto-Indo-European present, but it leads to the logical question where the perfective stem goes back to. This point is addressed by Kim (2007b), who makes the interesting – though evidently wrong – suggestion that the Proto-Indo-European perfect supplied that perfective stem (see 4.9.3, p 486). Obviously, Kim was not led

⁷³³ As I argue against the derivation of the subjunctive from the perfect, it would have suited me to learn Jasanoff’s opinion on the initial accent of the subjunctive. I have now offered my own explanation of the accent in 4.5.5 (p 413), which could in theory be used by proponents of the *molō*-type theory.

by semantic clues: his main objective was to reconcile the perfect theory with the perfective present theory.

The simple solution defended in this study is that the perfective present theory contains the key to the historical explanation of the subjunctive: the perfective stem on which it is based is just the old Proto-Indo-European perfective stem, the aorist.

4.1.8 AORIST INJUNCTIVE

If the Tocharian contrast between the imperfective present stem on the one hand and the perfective preterite and subjunctive stem on the other continues the Proto-Indo-European contrast between the imperfective present and the perfective aorist stem, the origin of the Tocharian subjunctive seems to be the Proto-Indo-European aorist injunctive. After all, there is little evidence of old subjunctives, including aorist subjunctives, so that the non-past injunctive seems to be the only option. In as far as the Tocharian subjunctive does continue old **e/o*-subjunctives, their semantic contribution is not so much to be found in their subjunctive suffix, but rather in the fact that they are formed to the perfective aorist stem.

Thus, the theory defended in this study is identical to the following account of Pinault with respect to his derivation from the subjunctive and the injunctive. However, in as far as he includes the present and the perfect stem as possible origins, it is not:

“L’inventaire des classes de subjonctif montre qu’il est rarement le descendant formel du subjonctif indo-européen: il s’agit d’une catégorie nouvelle, propre au tokharien, qu’on peut définir en synchronie comme «le non-passé de l’aspect perfectif» (Winter, 1994, p. 286; 1998, p. 164), et qui hérite à la fois du subjonctif (aoriste, parfait) et de l’injonctif (présent, aoriste, parfait), ce qui explique qu’il reçoit les désinences de présent, issues des désinences secondaires et primaires.” (2008: 571)

The most explicit derivation from the aorist injunctive is probably that of Kortlandt (1994: 62), which I cite below. For the technical details of his derivation, I refer to 4.5 (p 403):

“If the asigmatic forms in the *s*-preterite arose from the phonetic loss of **s*, the root subjunctive is best derived from the sigmatic aorist injunctive, a derivation which moreover explains the absence of an *s*-subjunctive.”

As the derivation from the aorist injunctive is in fact a specific application of the perfective present approach mentioned above (4.1.7, p 338), it is compatible with most versions of the latter. It can also be reconciled with Lane’s equation of the Tocharian *a*-subjunctive with the *a*-preterite, if this *a*-stem ultimately reflects an aorist formation (1959: 172). However, Lane’s intermediate step that the *a*-formation with present endings became a present first is unnecessary: probably, such preterite-subjunctive stems were always accompanied by a derived present.

4.1.9 METHOD

Few methodological preliminaries are required: I try to keep to the generally accepted principles of comparative linguistic reconstruction without adopting a special theoretical framework. Whenever there is a choice between a regular morphological pattern and a morphological irregularity, the preferred solution takes the pattern to be the result of analogy and the irregularity the result of sound change. In my understanding of the historical development of Tocharian, both types of changes have drastically changed the appearance of the Tocharian languages: our basic task is to sort out which changes are due to sound law and which are due to analogy, and to look for independent clues to support interpretations.

As a consequence, I start my historical approach with irregular phenomena rather than rigid patterns. The first choice is only logical: irregular verbs, a selection of which is discussed at length in 4.3 (p 351). The second is perhaps less obvious: present-subjunctives (4.4, p 377). Although present-subjunctives are relatively frequent, certainly in Tocharian B, which does allow to establish certain patterns, the regular situation in Tocharian is that there is a contrast between present and subjunctive. Both the irregular verbs and the present-subjunctive allow to make breaches in the rigid system presented by many other subjunctive formations, for instance the much more regular root subjunctive to $x|\emptyset$ -roots (4.5, p 403) and $x|a$ -roots (4.6, p 430).

Since I was educated at Leiden University, it will not be much of a surprise that I adhere in principle to the reconstruction of the Indo-European proto-language of Beekes (1995). However, I am well aware of the potential of Tocharian: this branch might have preserved archaisms that force us to change or adapt elements of the reconstruction. Therefore, I will be cautious with the application of “Leiden” views or insights, and try to be open-minded towards the linguistic facts of Tocharian.

4.1.10 STRUCTURE

This chapter is organised as follows. In 4.2 (p 341), the personal endings of the verb are discussed in order to show that the Tocharian present endings continue the endings of the Proto-Indo-European present-aorist system, whereas the preterite endings continue the endings of the perfect. In 4.3 (p 351), a number of important irregular verbs is discussed, which gives important insights in the development of the verbal system as such. The Tocharian present-subjunctive is derived from the Proto-Indo-European present in 4.4 (p 377), which suggests that the subjunctive does *not* derive from the present. In 4.5 (p 403), the $x|\emptyset$ -root subjunctive and the related *s*-preterite and *s*-present are discussed, to be ultimately derived from the *s*-aorist. In 4.6 (p 430), the $x|a$ -root subjunctive and preterite and the related nasal presents are discussed. The chapter is concluded with the heterogeneous relic category of $\text{'a}/e$ -presents with *e*-grade in the root (4.7, p 453), minor subjunctive types

(4.8, p 469), a discussion of the development of the meaning (4.9, p 480), and a brief conclusion (4.10, p 491).

4.2 ENDINGS

Whereas the debate about the origin of the different stems is fierce and undecided, the explanation of the personal endings is in broad outline commonly agreed upon (see in general e.g. Kortlandt 1979, 1981; Adams 1988: 51-61; and Pinault 2008: 619-630 with references). As these endings might contain information about the origins of the stems, but certainly need to be considered in any diachronic account of the Tocharian subjunctive, it seems best to start with them.

In a nutshell, Proto-Indo-European must have had three main types of endings: primary endings with present reference, secondary endings without present reference, and special endings for the perfect. The primary endings were of two types: athematic and thematic. In Tocharian, the difference between the Proto-Indo-European athematic and thematic primary endings was lost, as well as that between primary and secondary endings: traces of all three sets can be found in the Tocharian present endings. On the other hand, the perfect endings were kept distinct and came to be used as the preterite endings.

4.2.1 PRESENT ACTIVE

As must be immediately clear from the table presented in 2.2.1 (p 26), already the Tocharian B present endings alone cannot be just projected back to Proto-Tocharian, since they come in three different variants, and a comparison with those of Tocharian A makes a more detailed reconstruction of the Proto-Tocharian set necessary. If we focus on the active endings first, the differences between the present sets within Tocharian B concern the three singular persons, those within Tocharian A the third person plural, and those between the two languages all endings.

1sg

The Tocharian A ending is *-m* everywhere, and this ending is certainly mirrored by Tocharian B *-m* found in the imperfect-optative subset, and in *yam* 'I go'. TA and TB *-m* must continue PT **-mā*, continuing the PIE athematic primary ending **-mi*, as the PIE secondary ending **-m* would certainly have become *-Ø*. Another 1sg. ending is found only in Tocharian B: *-w*. Although it has repeatedly been suggested that PT **-mā* was in certain positions lenited to *-w* (e.g. Sieg and Siegling 1921: VI; Couvreur 1938b: 243-247; 1947: 42, 49, 55; Winter 1990b: 15-16), the conditions for such a development have not been stated satisfactorily, and I keep to the alternative derivation of TB *-w* from the PIE thematic primary ending **-oH* through **-ō > *-u* (Pedersen 1941: 141), perhaps preserved in positions where it was covered by a clitic.

The Proto-Tocharian distribution of the two 1sg. endings is not fully clear, but both must have been found in the present and the subjunctive, since the TB relic

form *yam* proves that **-mā* was in use as a present or present-subjunctive ending. The isolated imperfects of 'be' and 'go' with *-m* in both languages, and the regular presence of this ending in all other imperfects and optatives of Tocharian B suggests that it was at home there, too. Whether the 1sg. *-m* and 1pl. *-(e)m* ever were homophonous in Tocharian B depends on the evaluation of the final *-s* of Tocharian A *-mās*. If they were indeed homophonous, this further confirms that the imperfect-optative 1sg. ending was *-m* in Proto-Tocharian (see under 1pl.). On the other hand, the completely isolated present-preterites *latau* and *kamau* cannot possibly have replaced older forms in Proto-Tocharian **-m* (i.e., PIE **-mi*), since **-m* with its past function in the imperfect had certainly been the more regular ending.

In conclusion, it is very likely that **-m* was the only ending in the imperfect-optative, whereas in the present and the subjunctive both **-m* and **-w* were found, but how they were distributed there is uncertain so far. Isolated *yam* could indicate that *-m* was regular in athematic presents as in Proto-Indo-European, but other types of distribution are also possible.

In Tocharian B, the ending *-w* spread to athematic paradigms and the thematic vowel was restored in thematic ones, but the date of this development is unknown. It is possible that the spread of *-m* in Tocharian A was triggered by the opaque thematic forms in *-u* instead of *-eu*, i.e. original **ayəm* 'I give' and **akəw* 'I carry' may have been made transparent as **ay-ə-m* vs **ak-e-m* in Pre-Tocharian A and as **ay-ə-w* and **ak-e-w* in Pre-Tocharian B.

2sg

The normal 2sg. ending is *-t* in both languages, which suggests a straightforward Proto-Tocharian **-tā*. The problem is that this **-tā* can reflect none of the relevant endings usually reconstructed for Proto-Indo-European, and it is often supposed to reflect a particle or a shortened form of the pronoun **tuH* 'you' (e.g. Pedersen 1944: 5; Cuvreur 1947: 55). As Pinault suggests (2008: 620), **-tā* might also reflect the perfect ending **-th₂* that would have yielded **-ta* (cf TB *-sta*), but this needs the assumption that somehow the *a* was removed, and the question is whether a model 1sg.prt. *-w-a* : 1sg.prs. *-w* : 2sg.prt. *-t-a* : X, X = *-t* is strong enough.

Another problem is what the new ending **-tā* replaced exactly. The athematic primary ending **-si* is excluded as something should have remained, probably ***,-š*, and if the thematic primary ending was indeed **-eh₁i* (based on Gk. *-εις* with analogical *-s* and Lith. *-i* from *-ie*; Kortlandt 1979: 57), this ending would probably have become ***,-'əy*. In fact, nothing seems to be wrong with an ending *-š* or *-'əy*, although the latter would perhaps have fused with clitic pronouns as 1sg. *-ñ* or 2sg. *-c*, and certainly with a preceding optative suffix. The only remaining candidate is the secondary ending *-s*, which would certainly have disappeared completely, calling for restoration.

The idea that **-tā* replaces older *-s* is nicely confirmed by the present-preterite, where the actual ending is *-Ø* in Tocharian B. Of course this ending is normally derived from *-es* in the thematic aorist directly, but in view of the 1sg. ending *-w*, the

present-preterite must have been felt as a category on the same level as the present and the subjunctive, which suggests that this zero ending was actually there in the present and the subjunctive, too. Thus, the secondary ending **-s* was generalised, and in its non-preterite function replaced by **-tə*. Perhaps the rationale was that **-tə* was better marked than the outcome of **-si* or **-eh_ii* or both. In that case, the spread of **-s* is only apparent, the generalised ending being in fact the reshaped **-tə*.

3sg

The 3sg. ending is always *-š* in Tocharian A, which does not match any of the two endings in Tocharian B: neither *-n* in the present and the subjunctive nor *-Ø* in the imperfect-optative and the present-preterite. It is commonly agreed that TB *-n* represents a particle added to the more original zero ending *-Ø* (e.g. Winter 1987: 307⁷³⁴). This particle can perhaps be identified with the pronominal stem seen in Slav. *onъ*, or otherwise, as argued by Pedersen (1941: 142-143), with the element *-n* in the demonstrative pronoun TA *saṃ* of distal deixis and TB *seṃ* of intermediate deixis, as argued by Winter (see Peyrot 2008a: 121-124) or of recognition, as argued by Pinault (2009: 229 and *passim*).

The TA ending *-š* has aroused some debate, as it was argued that it could reflect the PIE athematic primary ending **-ti*. However, parallels were few and problems manifold, so that this idea is discarded by Pinault (2008: 620). I have difficulties accepting his alternative explanation, however, because the progressive palatalisation he has proposed (in this case **-ed > *-əž*) is found only in a very limited number of contexts: it has no parallels to other developments in the phonological system, and it defies falsification as the end product is subsequently lost in Tocharian B. Therefore, I would identify *-š* with the same element in the TA demonstrative pronoun of proximal deixis *sās* (*š* e.g. in the n.sg. *tāš*), after Pedersen (1941: 142-143).

The zero ending is commonly derived from the PIE secondary ending **-t*, and rightly so, since that would certainly have been lost. However, if one follows Kortlandt's argument that OCS *-e(tь)*, Lith. *-a* and Gk. *-ει* point to a thematic primary ending *-e* for Proto-Indo-European, since the endings of all other languages can easily be explained by influence of athematic *-ti* (1979: 61; 1997: 134), that ending is certainly an option, too. In fact, such an ending *-e* would have merged with secondary *-t* after the thematic suffix, i.e. *-e-t*, at an early stage. Since this ending **-e* from **-e* and **-et* would have merged also with the 3sg.pf. ending **-e*, the 3sg. may have been a key form for the transition of perfects to present inflexion (see e.g. *ayk-* 'know' in 4.4.1, p 379, *yok-* 'drink' in 4.3.6, p 371, and perhaps *tək-* 'touch' in 4.7.5, p 464).

⁷³⁴ However, his suggestion that the *-n* is the reflex of the secondary athematic ending **-t* assimilated to a following pronoun starting with *n-* (1990b: 17-19) defies verification and must be discarded.

1pl

The 1pl. ending is *-m* throughout in Tocharian B, whereas Tocharian A has *-mäs* exclusively. Moreover, there is no difference between present and preterite endings in either language. Although *-s* is a frequent plural marker in the Tocharian A nominal and pronominal systems, it is not found elsewhere in the verbal endings. If not in some fashion taken over from the 1pl. pronoun *was*, this *-s* is probably to be identified with the final *-s* of the PIE athematic primary ending **-mes* (Skt. *-mah;* Skt. *-masi* probably has an analogical *-i* after *-mi*, *-si*, *-ti*, pace Pinault 2008: 621). However, the *-s* cannot have been preserved in exactly that form, but must have been covered by a particle or pronoun clitics. The generalisation of the *s*-form is easy to understand, since the *s*-less form merged with the 1sg. *-m* from PIE **-mi* (see above).

As the correspondence TA *-s* : TB $\emptyset$ is not regular phonologically,⁷³⁵ TB *-m* must have another immediate origin. This could be the same ending **-mes*, but a variant of it that really lost the *-s*. If the two variant outcomes of **-mes* existed side by side, the *s*-less form was probably able to survive because it merged with the outcome of the secondary ending **-me* (Skt. *-ma*), or the reflex of an ending **-men* (**-mem?*), if that was the thematic primary ending.⁷³⁶ In conclusion, Tocharian A *-mäs* may continue the athematic primary ending, and Tocharian B *-m* the same ending, and practically all others (except endings with *o*-vocalism, such as that probably evidenced by Lat. *-mus*), but there is no trace of any sort of distribution.

2pl

The problem of the 2pl. is easily stated and difficult to solve. In Tocharian A, we find *-c*, which could reflect PIE **-te* or **-th₁e* (Skt. *-tha*). The same ending *-c* is found in the preterite and imperative middle; the present middle *-cār* has the present marker *-r* added to the preterite ending. The problem is the Tocharian B ending *-cer*, which has a vowel *e* and a final *r* that are difficult to explain. The *-r* is common in the middle endings, but further only found in the 3pl.prt. (active); *e* is rare altogether, only found in the preterite middle. None of these categories is a likely source for the elements *-e-*, *-r*, or *-er*, or of the complete ending *-cer*. The 2pl. pronoun *yes* does not give a ready explanation either: if the combination *cy* was simplified to *c*, we would still have expected *-ces*, not *-cer*. Although *yes* was at a certain stage analysed as *ye-s*, as we see from the 2du. *ye-ne*, this would still leave the *-r* unexplained (pace Pinault 2008: 621, it cannot be identical to the *-r* in the TA prohibitive negation *mar*, since that is likely to reflect *-ra*, which would of course have given ***-cera* in Tocharian B).

⁷³⁵ The only comparable correspondence is between TA *-s* and TB *-n*, which reflects the cluster **-ns*.

⁷³⁶ On the basis of OCS *-mъ*, Kortlandt rather reconstructs a PIE ending **-omom* (Kortlandt 1979: 63–64). Pinault discards *-me* as a possible source, since this would have yielded TB ***mi* through **-mā* (2008: 621). However, the reflex TB *i* for PIE **e* is only found in positions where the “coloured shwa” would have been preserved, i.e. not word-finally.

But even if we found an explanation for *-er*, it is not clear altogether why an original *-c* (which is, after all, expected on the basis of Proto-Indo-European) should have been replaced or extended. Within Tocharian B, there is no ending with which it would have merged, and I do not see which kind of unacceptable problems it could have caused: ambiguity through combination with the 2nd singular clitic pronoun cannot have been too frequent (if only for pragmatic reasons), nor does it seem possible that confusion with the 3sg. ending with the 2sg. pronoun clitic, or phonological problems after palatalised consonants in thematic paradigms a sufficient reason. If the 3pl. ending was (also) *-nc*, this was close indeed, but probably not close enough.

3pl

The normal 3pl. ending is *-n* in TB, whereas we find *-ñc* in TA, with a marginal variant *-y*. Most scholars agree that the “basic” endings TB *-n* and TA *-ñc* are not reconcilable on the Proto-Tocharian level, and reconstruct PT **-n* < PIE secondary **-nt* for the former and PT **-nc(ə)* < PIE primary **-nti* for the latter (see Pinault 2008: 621; Pedersen 1941: 144). Since *-n* is found in TB throughout, also in the “peripheral” imperfect-optative and present-preterite, and, likewise, *-ñc* is found in all categories in TA, it is only on the basis of Proto-Indo-European that we can assume that TA continues the primary ending and TB the secondary ending; there is no proof for such a difference within Tocharian.

The TA ending that needs to be described synchronically as *-y*, looks in fact completely like a truncated *-ñc*: *tränki* ~ *tränkiñc* ‘they say’, *lke* ~ *lkeñc* ‘they see’, etc. The distribution of these short endings over the texts is marked, as 16 out of 22 occur in the Maitreyāvadānavyākaraṇa, and only 2 of these are found in prose (Sieg, Siegling and Schulze 1931: 326–327). However, any grammatical rule for their occurrence next to the long endings seems to be lacking; their use is “ohne erkennbare Regel” (o.c.: 326).

Most explanations go back to Sieg, Siegling and Schulze’s suggestive reference to the loss of *-ñc* before the 1sg. pronoun clitic *-ñi*, and argue that the short ending could have been generalised from there (e.g. Itkin 2002: 14). Possible as this explanation is, it is not supported by the distribution of the forms; at most one can say that the *other* pronoun clitics are not found after the short endings, but that is hardly significant with these small numbers.

To my knowledge, Pinault was the first to suggest that the short endings are not truncated, but reflect a different ending. Indeed, the distribution between “real” presents and other formations, like subjunctives, present-subjunctives, etc, is not equal: real presents are *kumse* (2x), *tāse*, (*l*)*ām(t)se*, *lotänke* (2x), *tsäkse*, whereas *kärse*, *tāke* (2x), *te*, *yā(m)e*, *länce*, *lotke*, and possibly *sälpe* are subjunctives; *cämpe* and *wināse* are present-subjunctives, and *tränki* (3x), *ype*, and *lke* are suppletive

presents (the first and the last could be called subjunctives morphologically).⁷³⁷ Of course, this distribution, if it is significant at all, is only useful if the ending *-y* is not the result of secondary truncation.

Pinault suggests that *-y* reflects the secondary ending *-nt* with loss of final *t* (*-t# > -d > -z > -Ø*) and loss of *n* with the diphthongisation effect as in TA *es* ‘shoulder’ vs TB *āntse*, both from **anse*. If one does not accept his development of final *-t* to *-z*, the only option remaining is to take recourse to sandhi, either before pronoun clitics or in larger syntagms. The latter context does not look promising as the short endings seem to occur more often before vowels and caesurae (Sieg, Sieglings and Schulze 1931: 326), whereas for the first we end up with the 1sg. and 2sg. pronoun clitics again: **lakan-ñā* and **lakan-cā* would certainly produce the required *e* (as if from *ay*). These forms would both have merged with long ending forms, yielding *lkeñi* and *lkeñci*, but again extraction of *lke* seems only possible in the first.

All in all, it is in my view certain that there were two different 3pl. endings in Proto-Tocharian: **-n* and **-nc(ə)*. However, their distribution must remain uncertain; the evidence from the TA short endings is difficult to evaluate and eventually this ending could be secondarily extracted from the position before the 1sg. pronoun clitic.

conclusion

Although the differences between the 1sg., 1pl. and 3pl. endings of Tocharian A and B must certainly be projected back to Proto-Tocharian, it is not completely clear how the different endings were functionally distributed. The present-preterite certainly had secondary endings in Proto-Tocharian, even if it has assumed the 1sg. primary ending *-w*. Further, the 3sg. zero ending of the Tocharian B imperfect-optative proves that this category must have had secondary endings, too. The difference between the 1sg. present-preterite *-w* and the imperfect-optative *-m* suggests that the first is secondary; it can perhaps be explained by the thematic suffix in the former. The co-existence of two 1sg. present endings in Tocharian B points to a contrast between thematic and athematic paradigms for Proto-Tocharian. It remains highly doubtful whether there was a difference in the endings of the present and the subjunctive.⁷³⁸ In sum, we can draw the following tentative scheme:

⁷³⁷ Perhaps it is worthy of note that of the real presents, *tāse*, (*l*)*ām(t)se* and *kumse* (once) occur outside the Maitreyāvadānavyākaraṇa.

⁷³⁸ It cannot be excluded that there was, in fact, a difference between the prs.3du. *-ten* vs the sbj.3du. *-ys* in Tocharian B, but the evidence is so meagre and the forms must have been so marginal in the spoken language, too, that we can hardly draw conclusions from this difference.

	them. prs.	athem. prs.	ipf.-opt.	prs.-prt. (them.)
1 sg.	-w	-m	-m	-w << -Ø
2	-tə	-tə	-tə?	-Ø
3	-?	-?	-Ø	-Ø
1pl.	-mās	-mās	-m	-m
2	-c	-c	-c	-c
3	-ncə	-ncə	-n	-n

Many uncertainties remain. The distribution of the 1pl. and 3pl. endings is entirely based on their supposed origins in Proto-Indo-European. Whereas the zero ending for the 3sg. is secured for the ipf.-opt. and the prs.-prt., it is not clear whether TA -š and TB -n were already in use in Proto-Tocharian times, and if so, whether one was for instance thematic and the other athematic. If the ipf.-opt. is to be taken together with the prs.-prt., it is likely that the 2sg. had a zero ending, but otherwise it was probably -tə, too. As the origin of the TB 2pl. ending -cer is unclear, it is doubtful whether it was, for instance, a variant in the present endings.

In the remaining ending sets, chiefly the present middle and the preterite, only minor differences within the languages are attested, and those between Tocharian A and B are much less prominent, too.

4.2.2 PRETERITE ACTIVE

Tocharian A 2sg. -št, 3sg. -Ø, 1pl. -mās, 2pl. -s and Tocharian B 2sg. -sta, 3sg. -Ø, 1pl. -m, 2pl. -s evidently reflect Proto-Tocharian 2sg. -sta, 3sg. -Ø, 1pl. -m (see above), and 2pl. -s. The remaining endings deserve more detailed comments. For the 1sg., Tocharian B -wa points to *-wa, matched by the TA relic ending -u. The other Tocharian A endings are remodelled: -ā is contracted from *-awa and *-wā is the original -w- plus the contracted ending -ā, or old -wā as it was preserved before clitics; rare -āwā is formed from the ipf. stem formant ā plus the ending -wā (itself analogical; see Winter 1965b: 206-209). The 3pl. has two forms in Tocharian B, -r and -re, but Tocharian A shows only -r; also before pronoun clitics, we find no variant -ra (Sieg, Siegling and Schulze 1931: 335). Apart from “normal” levelling, the reason is of course that the expected long ending ra was at home in the a-preterites where it was always subject to vowel weakening.

The Tocharian preterite endings continue those of the Proto-Indo-European perfect. Straightforward are the 3sg. -Ø < *-e (apparently with analogical removal of the palatalisation in e.g. the 3sg.prt. -sa, see 4.5.4, p 411) and 1pl. -m < *-me. The 1sg. -wa goes back to *-h₂ with the addition of an element -u- from the preterite participle or perhaps the present ending -w; note, in any case, that with the spread of -a- as a preterite marker, a 1sg. -a was bound to be replaced by another, distinct ending. The 2sg. -sta goes back to *-th₂, but with an additional s, either from the s-aorist, or otherwise perhaps a relic of the original secondary ending -s.

At least at first sight, the 2pl. ending *-s* is incompatible with an ending **-e* as required by Ved. *-a*, while it is strongly reminiscent of the element *-s-* in the Hittite 2pl. endings of the *hi*-verbs: prs. *-šteni* and prt. *-šten* (Kloekhorst 2008a). Since *-šteni* and *-šten* are likely to have been reshaped after the *mi*-endings *-tteni* and *-tten*, the combination of Hittite and Tocharian leads to the preliminary reconstruction of a 2pl. perfect ending *-su* (o.c.: 498-499). However, the isolated character of the Vedic ending suggests that it is old: it is completely unclear how it should have come to replace an earlier ending **-su*, if that ever existed. An alternative explanation of the Tocharian ending could take the *-s* to be from the *s*-aorist (which could have a parallel in the 2sg. *-sta*, see above), while the expected palatalisation of the ending *-e* was removed by analogy, similar to what must have happened in the 3sg. *-Ø < *-e*.

The difference between the Tocharian B 3pl. endings *-r* for *s*-preterites and *-re* for preterites in *-a* is difficult to explain: apart from the differences in the 1sg. in Tocharian A, which are clearly secondary (see above), the ending sets are identical. Because of its accentual behaviour, *-r* has been derived from Proto-Tocharian **-rə* (Ringe 1990: 197-206): this would explain why e.g. *prekar* ‘they asked’ has final accent, i.e. {preká-rə}. However, such an original underlying shwa is not directly attested, since we never find forms with mobile *-o* or final *-ā* such as ***prekaro* or ***prekarā*. As an alternative, we might consider the possibility of ordinary levelling of the accented *á*, which is found in all active forms except the 3sg. *preksa*. This would allow to derive *-r* from PIE **-r* or **-rs* (Ved. *-uh*) in a straightforward way; in any case, Ringe’s reconstruction **-r-nt* would not yield the proto-form **-rə* that we need, but ***-rən* instead.

The variant *-re* seems to reflect a PIE **-ro*, but such an ending cannot be reconstructed for the perfect (a typological comparison with Latin *-erunt < *-ēr-ont* fails, again, on the final, which would have been preserved as ***-rem*). Because *-r* has a good etymology but *-re* has not, I suppose that the latter is secondary. However, a model and a motivation are not easy to find. The only motivation I can think of is the homonymy with the sg.mid. imperative ending *-r*. Before the spread of initial palatalisation in the *a*-root preterite (on which see 4.6.7, p 446), the difference with the sg.mid. of the imperative was only the prefix of the latter, e.g. sg.mid.ipv. **pə-kəlar* ‘bring’ vs 3pl.prt.act. **kəlar* ‘brought’.⁷³⁹ In the *s*-preterites, on the other hand, both forms were additionally characterised by a difference in suffix, e.g. sg.mid.ipv. **pə-awn-sa-r* ‘hit’ vs 3pl.prt.act. **awnə-r* ‘started’. This difference in stem formation between the *a*-root preterite and the *s*-preterite explains why only the ending of *a*-root preterite was substituted. However, I do not know a suitable model for ending *-re*: it seems to have been reshaped after the corresponding middle end-

⁷³⁹ Synchronically, there is also a difference in accent, i.e. {pə-kála-r} vs {śálá-re}. Even if the accentual difference was already there at the time of the creation of the 3pl. ending *-re*, it may not have been a sufficiently salient distinction.

ing *-nte*, but I cannot explain how (possibly, the *-e* of *-nte* was analysed as the preterite marker, as explained below).

4.2.3 PRESENT MIDDLE

Tocharian A 1sg. *-mār*, 2sg. *-tār*, 3sg. *-tār*, 1pl. *-mtār*, 3pl. *-ntār* and Tocharian B 1sg. *-mar*, 2sg. *-tar*, 3sg. *-tār*, 1pl. *-mtār*, 3pl. *-ntār* point to Proto-Tocharian **-mar*, **-tar*, **-tār*, **-mtār*, **-ntār* (Kortlandt 1981: 132); on the assumption that PT **t'w* yields TA *c*, TB *t*, **-t'wār* can be posited for the 2pl. With the *-r* as a present middle marker, the immediate pre-forms must have been 1sg. **-ma*, 2sg. **-ta*, 3sg. **-t*, 1pl. **-mt*, 2pl. **-t'w*, 3pl. **-nt*. These formants are so close to those needed for the preterite middle that we can only discuss them after having seen the latter as well.

4.2.4 PRETERITE MIDDLE

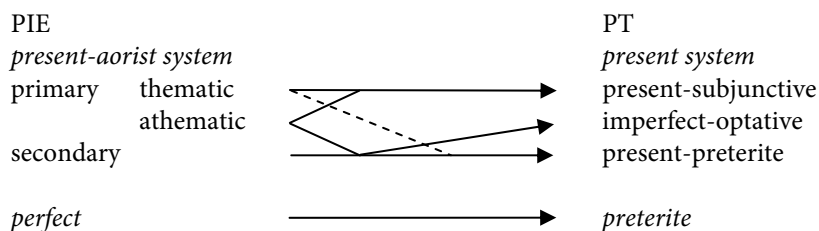
Again, the Proto-Tocharian state of affairs cannot have been very different from TA 1sg. *-e*, 2sg. *-te*, 3sg. *-t*, 1pl. *-māt*, 2pl. *-c*, 3pl. *-nt* and TB 1sg. *-may*, 2sg. *-tay*, 3sg. *-te*, 1pl. *-mte*, 2pl. *-t*, 3pl. *-nte*: they point to *-ay*, *-tay*, *-te*, *-mte*, *-t'w*, *-nte*. The Tocharian A 1sg. ending *-e* may in fact reflect older **-away* (Schmidt and Winter 1992: 55) as the extremely rare ending *-we* is found in an archaic form, which suggests that is relatively old. However, eventually *-we* must have been formed after the active *-wa*, and the ending **-ay* that needs to be reconstructed on the basis of the comparison with Tocharian B *-may* may also be preserved directly in the regular ending *-e* < **-a* + *ay*. Compared to the present forms, the 3sg., 1pl. and 3pl. seem to contain a preterite marker *-e*, which was, however, not generalised throughout the paradigm. Perhaps the 2pl. was not affected because it had no *-t-*; of course, the *-e* could not be added to the 1sg. and 2sg. endings *-a* and *-ta* because it would have resulted in hiatus.⁷⁴⁰

If we combine the findings of the present and the preterite middle, the present marker *-r* must originate from the PIE 3pl. **-ntro*, whereas the preterite marker *-e* must have been subtracted from the 3sg. **-to* and the 3pl. **-ntro* (Kortlandt 1981: 133–134). Thus, the 1pl. *-mte* reflects **-med^hh₂o* with loss of the **h₂* before the *o*; 2pl. **-t'w* goes back to **-d^hue*. The 3sg. and the 3pl. were reanalysed and rebuilt with the 3sg. formant *t* and the 3pl. formant *nt*, enlarged with the present marker *-r* or the past marker *-e*. The 2sg. points to **-th₂*, whereas the 1sg. continues two forms: **-mh₂* for the present and **-h₂* for the past.

⁷⁴⁰ It cannot be excluded that at some stage *ae* yielded *ai*, but I know of no other proof of such outcome.

4.2.5 CONCLUSION

Thus, as already shown by the “building blocks” outlook of the paradigms, the middle inflexions are the result of heavy remodelling: both the element *-r* and the element *-e* have been subtracted from old middle endings, but their function as present marker and preterite marker respectively is a complete innovation of Tocharian. On the other hand, the preterite active endings reflect the Proto-Indo-European perfect endings with only slight adaptations. The Tocharian present endings are a mixture of the Proto-Indo-European primary and secondary athematic as well as the thematic endings of the present-aorist system. The developments of the active endings are schematically represented below:



The fact that primary and secondary endings have merged into the Tocharian present endings has far-reaching consequences. In combination with the augment (the past tense prefix **h₁e-*), the Proto-Indo-European primary and secondary endings expressed the contrast between present and past tense, while in unaugmented forms they probably denoted present or actual events versus non-present or non-actual events. Since there is no functional trace of the augment in Tocharian, the distinction between the three Proto-Indo-European categories present, past and non-actual expressed by the endings and the augment was lost.

Evidently, this is the reason why the Tocharian preterite continues the old perfect endings: these were the only sufficiently distinct past endings available. As argued in 4.5 (p 403) and 4.6 (p 430), the stem of the Tocharian preterite generally goes back to the Proto-Indo-European aorist stem. Thus, when the aorist past tense lost its past tense marking through the merger of the primary and the secondary endings (and the loss of the augment), it took over the perfect endings to reintroduce a clear past tense distinction.

The merger of primary and secondary endings also invites the question what exactly is continued in the Tocharian present endings. If the Tocharian present goes back to the Proto-Indo-European present stem (as is argued in 4.3, p 351), is it then a reflex of the “present” with primary endings or of the “present injunctive” with secondary endings? In my view, this question is wrong in that it reverses cause and effect. The Tocharian present is not a mixture of the original present indicative and the present injunctive, but its endings are a mixture of primary and secondary endings: the loss of the present injunctive made the adoption of secondary endings

in the present possible. Although the same development must be responsible for the present endings of the Tocharian subjunctive, it is likely that the latter replaces a category with secondary endings, for details see 4.5 (p 403), 4.6 (p 430) and 4.9 (p 480).

4.3 SOME IRREGULAR VERBS

As mentioned above in 4.1 (p 329), the main problem with the Tocharian verb is that the many rigid patterns it displays are actually the result of countless and drastic mending operations. Therefore, the most promising weak point to attack are irregular verbs, of which a selection is discussed below. Without claiming that the remainder of the verbal system is perfectly regular, I do believe that these verbs represent a good deal of the most important irregularities.

4.3.1 ‘COME’

The verb ‘come’ without doubt belongs to the most irregular verbs, but on the synchronic level its forms are relatively straightforward, the reconstruction of the Proto-Tocharian stems being only slightly more difficult. The present forms are the easiest: they unambiguously point to a Proto-Tocharian **nask’^ə/_e*-suffix. In Tocharian A, the *n* is dropped in the cluster *mns*, as in *kumse* 3pl., but in larger clusters like in *kumnäštär* it was preserved because the *ä* was not syncopated; thus, Tocharian A forms a present {*k^wäm-nä^{sä}/_{sa}*}. Since in Tocharian B the present is {*känmä^{ssə}/_{ske}*}, which regularly goes back to a Pre-Tocharian B **kəm-nask’^ə/_e*-, we can reconstruct the Proto-Tocharian present as **k^wəm-nask’^ə/_e*-.

The etymology of **k^wəm-* is evident and the present **k^wəm-nask’^ə/_e*- can be derived from Proto-Indo-European directly (Klingenschmitt 1982: 64). A PIE *sk-* present **g^wm-sk^e/_o*- is well attested in Ved. *gácchati* ‘comes, goes’, YAv. *jasaiti* ‘id’, Gk. *βάσσω* ‘come’ and Alb. *n-gah* ‘runs, hurries’ (LIV2: 209-210). **g^wm-sk-* must have become **k^wən-sk-* at first, after which the root was restored, but the *n* was kept. The heavy cluster *mnsk* was resolved with *ə*-epenthesis to yield the attested **k^wəm-nask-*. Hackstein (1995: 306-7) rejected Klingenschmitt’s solution because a cluster **-Nsk-* yields *-sk-*, as evidenced by e.g. *kask-* ‘scatter’ from **g^{wh}n-sk^e/_o*- and *mask-* ‘be’ from **mn-sk^e/_o*-. However, it is evident – as already pointed out by Klingenschmitt – that the *n* was not lost in this case, exactly *because* the *m* was reintroduced: it was saved by the necessary *ə*-epenthesis.

The Proto-Tocharian subjunctive must have been **śəm’^ə/_e*-. In Tocharian B, the *n* of the present has spread to some subjunctive forms, yielding a couple of variants (cf in detail Peyrot 2008a: 147-148). Although the proof of the *’^ə/_e*-suffix is not as firm as it would be with an attested alternation between palatalised and unpalatalised root-finals (*m* is unpalatalisable, see 2.5.4, p 64), its reconstruction is secured. In Tocharian B, forms like 3pl. *śanme(ṃ)* and prs.ptc. *śmemane* are very clear; even though the 3pl. ending may in fact be {-en}, witness *yāmeṃ* {*yām-en*} ‘they will do’, the 1sg.

šamau definitely proves the stem variant {šəme-}. Likewise, the Tocharian A 3pl. *šmeñc* proves the stem variant {šäma-}.⁷⁴¹ Mechanically reconstructed, Proto-Tocharian **šəm^ə/e-* goes back to **g^wem-e/o-*. This is exactly how a traditional thematic subjunctive from a root aorist is reconstructed: with *e*-grade in the root and the thematic suffix, just as we find it in Ved. *gámati* << PIIr. **jáma-* < **g^wem-e*. The important conclusion that Tocharian inherited a system with at least this type of subjunctive is inescapable.

It is especially the preterite of ‘come’ that is intriguing both on the synchronic and the diachronic level. The problems with this preterite concentrate on 2sg. and 3sg. *šem* in Tocharian B.⁷⁴² (In view of their bad attestation, I prefer to leave the imperative forms out of my treatment.)

It can hardly be overemphasised that the gradation and palatalisation pattern 1sg., 1pl., 3pl. {*kəm-*} vs 2sg., 3sg. {*šem-*} is completely isolated in Tocharian and must reflect something old. Although a pattern with *e*-grade in the singular and *ə*-grade in the plural is found in *ə|Ø*-subjunctives of the type 3sg. *prekām* : 3pl. *parkām*, a contrast between palatalised initials in the singular and unpalatalised ones in the plural is not found there. *ə|a*-root preterites have more or less the correct distribution of palatalised initials in the paradigm, but combining with different root grades: e.g. sg. **cərka-* vs pl. **tərka-* (see 4.6.7, p 446). The correct match between palatalised initials and root grades, but with a different distribution over the paradigm, is found in the *s*-preterite of the type TA 3pl.act. *casär*, 3pl.mid. *tsänt*, with **e* in the active and **ə* in the middle. Thus, parallels are found mostly with the *s*-preterite and the *ə|Ø*-root subjunctive type, but they are never perfect. More importantly, these parallels offer no explanation for the 1sg. *kamau*.

Generally, the preterite of ‘come’ is considered to be too irregular to make a search for morphological parallels within Tocharian worth the effort, and explanations are rather sought in Proto-Indo-European directly. As commonly agreed, Proto-Indo-European formed a root aorist **g^wem-* ~ **g^wm-*, as best evidenced by Ved. 3sg. *ágan*, 3pl. *ágman* (LIV2: 209). This formation is usually the source *šem* is derived from, for instance through a sound law with subsequent levellings.

Pinault, for example, has proposed that the long **ē* needed for *šem* was actually at home in the 1sg., where it could arise from **g^wem-m* through **g^wēm*, by means of a

⁷⁴¹ Pace Hilmarsson (1991a: 105-6), the Tocharian B privative *ekamätte* does not prove the existence of a second subjunctive stem *kəm-* < **k^wəm-*, nor any alternating subjunctive of the type **k^wəm-* ~ **šəm-*. Apparently the privative was, at least in this case, not formed from the subjunctive stem, but from the preterite or from the root.

⁷⁴² The preterite of Tocharian A is not attested. The only form that has been adduced is *kmām* TH1411C.a4 (originally introduction to A399), which is extremely dubious because it lacks any context. If related, it presupposes a 3sg. *kām** or a 1sg. *kmā** with suffixed pronoun. Such a stem could easily be derived from the Tocharian B preterite, but does not itself add anything to the reconstruction.

variant of Stang's law⁷⁴³ (1994: 201-204; hesitantly accepted by Hackstein 1995: 164 and LIV2: 210). From the first person, the long $*\bar{e}$ spread over the whole singular, but just in the first singular $\acute{se}m-$ was replaced by $k\bar{a}m-$ later; the model would have to be *latau* 'I went away'. Since synchronically the paradigm has an $\text{'}\bar{e}$ -suffix, a further motivation could be the fact that so all e -variants obtained the root form $k\bar{a}m-$, i.e., a stem $k\bar{a}me-$: 1sg. *kamau*, 1pl. *kmem*, 3pl. *kameṃ*.

The problem with this derivation of the long $*\bar{e}$ is that, in the end, it does not account for the peculiar distribution of the root form $\acute{se}m$; that distribution needs its own additional explanation. More substantial criticism could be drawn from the fact that the required sound law has no exact parallels, let alone for this particular verb. Pinault argues that $*emm > *\bar{e}m$ is parallel to an intermediate stage $*Vmm$ of Stang's law $*Vwm > *\bar{V}m$, but the supposed intermediate stage cannot be ascertained independently.

Alternatively, Kim (2001) has suggested that not only the 1sg. $*-m$ caused lengthening of $*e$ to $*\bar{e}$, but the 2sg. $*-s$ and the 3sg. $*-t$, too. In other words, 1sg. $*g^wem-m$, 2sg. $*g^wem-s$, 3sg. $*g^wem-t$ would have yielded 1sg., 2sg., 3sg. $*g^w\bar{e}m$ by sound law (except for restoration of the final $-m$; for details see o.c.: 131-134). Evidently, this solution makes the derivation of $\acute{se}m$ easier, but it needs the same additional explanation for 1sg. *kamau*, and it heavily depends on the questionable sound law proposed, $*VRC > *\bar{V}R$.

To my knowledge, Winter has been the only one to give a phonological explanation of $\acute{se}m$ in Tocharian terms. However, neither his sound law $*e > *\bar{e}$ in monosyllables, nor his alternative development $*eme > *\bar{e}m$ are substantiated with good parallels, and counterexamples are adduced by Hackstein (1995: 164).

Morphological explanations are surprisingly few. The oldest and most popular is without doubt the equation of $\acute{se}m$ with Lat. *vēnī* 'I came' (e.g. Krause and Thomas 1960: 253). However, the origin of the Latin type is disputed and the age and origin of the $\bar{e}$ of *vēnī* are disputed. On the basis of apparently parallel Gm. $*k^w\bar{e}m-$ as in Goth. 1pl. *qemum* 'we came', where the $*\bar{e}$ is the functional equivalent of Ø-grade in the plural compared to $*o$ -grade in the singular, it is often argued that the $*\bar{e}$ -grade forms replace reduplicated forms with difficult Ø-grades in the root (e.g. Brugmann 1916: 435; Meiser 2003: 153). Evidently, the restriction of $*\bar{e}$ -grade to the plural does not fit the distribution of our Tocharian $*\bar{e}$ at all. Consequently, a direct comparison of the stems $\acute{se}m-$ and *vēn-* is often rejected (e.g. Pinault 1994: 200-201; Schmidt 1997a: 257).

Based on his theory of the origin of the s -aorist $*\bar{e}$ in the 2sg. and 3sg. injunctive (1987), Kortlandt has offered a new interpretation of the *vēnī*-type. Since his explanation of the s -aorist is phonological, proceeding from automatic lengthening

⁷⁴³ In its narrowest form, $*Vwm > *\bar{V}m$ within Proto-Indo-European. The key examples are the acc.sg. $*di\bar{e}m$ '(god of the) day' and $*g^w\bar{o}m$ 'cow' as reflected in e.g. Ved. *dýām* and *gām* vs nom.sg. *dýāuh* and *gáuḥ*.

in monosyllables, he assumes that the same lengthening took place in the root aorist (in particular Kortlandt 2004). His evidence consists among others of 1) *s*-aorist-like lengthened grade root aorist forms in Vedic, e.g. *adyaut* ‘shone’ (2004: 14); 2) the Latin *ē*-grade perfects like Latin *vēnī* next to apparently isofunctional *e*-grade forms like Osc. *kúmbened* ‘it has been agreed’ (2007: 155); 3) the Germanic type Goth. *qemum* ‘we came’ mentioned above; and 4), evidently, Tocharian B 2sg. and 3sg. *śem* ‘came’, which fit his theory perfectly (2004: 9).

If Kortlandt’s reconstruction is correct, it explains the Tocharian forms neatly. Moreover, if the type survived into Tocharian on a larger scale, it might have influenced the gradation pattern of the *s*-aorist, which would account for the mysterious zero grade (non-palatalising *ǝ*-grade) that I reconstruct for a pre-stage of the Tocharian reflex of the *s*-aorist, instead of regular **e*-grade (see in particular 4.3.2, p 357, 4.5.3, p 408, 4.5.5, p 413). Although Kortlandt’s explanation is attractive in principle, direct evidence for exactly the distribution he argues for is slim. In Germanic, the *ē*-grade is found in the plural; in Italic, it is found throughout the paradigm in Latin, and although Sabellic has *e*, it does not show the alleged distribution either; likewise, the *o*-grade preterite of the type Alb. *mbloodha* ‘gathered’ shows that reflex of **ē* throughout the paradigm. Since it is conceivable that the distribution with lengthened grade in the 2sg. and 3sg. of the type Ved. *adyaut* is due to the fact that these forms could be reanalysed as *s*-aorists, the only language showing Kortlandt’s pattern beyond doubt is Tocharian with *śem*.

In view of the above, it is better to be cautious with the identification of Tocharian *śem* with the lengthened grade root aorist reconstructed by Kortlandt. Therefore, I will investigate another option below, but it goes without saying that if his reconstruction is correct, it accounts for the Tocharian facts in a much simpler and better way.

The comparison with the *s*-aorist made by van Windekens (1982: 159, 185; cf more recently also Schmidt 1997a: 257–258) has remained rather obscure. Van Windekens’ proof consists of the *s*-preterite actually found in the Tocharian middle,⁷⁴⁴ the Tocharian **e*-grade in *śem* (PIE **ē*) and the formation of the preterite participle TB *kekamu*, TA *kakmu*, compatible with an *s*-preterite. Evidently, a derivation of *śem* from a PIE *s*-aorist has not been and will not be accepted by other scholars because Proto-Indo-European just formed no *s*-aorist (pace Schmidt p 258; on the secondary middle *s*-aorist in Vedic, see Narten 1964: 106–107).

⁷⁴⁴ To my knowledge, Pinault is otherwise the only one to give an explanation for this *s*-preterite (1994: 193). He opts for an analogy between the present stem and the preterite middle, after the model 3sg.prs. *tānmastār* ‘is born’ : 3sg.prt. *temtsate*, with *ǝ*-grade in *kamtsate* after 3pl. *kamem* in the preterite active. It must be admitted that the present types *tānmastār* and *kānmastār* are relatively close, but, on the contrary, the present and the preterite are not. Moreover, since this match between ^{ssg}/_{ske}-present and *s*-preterite is only found with *e*-grade in the preterite middle (as in *temtsate*), it is disturbing indeed that we find *kamtsate** and *kekamu* instead of ***kemtsate* and ***kekemu*.

Nevertheless, all inner-Tocharian morphological parallels point to exactly this formation, and if the explanation of the Tocharian A relic 1sg. *s*-preterites in *-u* is correct, this type could offer an explanation for the difference between 1sg. *kamau* vs 2sg., 3sg. *śem*: the *u*-forms have *ä*-grade, contrasting with *a*-grade in other forms of the active paradigm. However, since the alternation between *k*- and *ś*- does not receive a ready explanation, the parallel with the *s*-aorist or *s*-preterite seems to work only for the root grade. If for some reason the *s*-preterite alternated not only in root grade, but also between palatalised and unpalatalised initials *at a certain pre-stage of Proto-Tocharian*, the transfer from the root aorist to the sigmatic aorist can perhaps be understood. The alternation of palatalised and unpalatalised initials was namely (almost) identical.

Since this line of thought requires quite a number of difficult steps, *śem* was an untypical *s*-preterite, if it was one at all. I will first sketch a scenario of how the transfer to the *s*-preterite could have worked, and discuss the problematic first person in more detail. Only afterwards will I reframe the problem of the peculiarities of this *s*-aorist type, and then I will consider the transfer to the *s*-preterite in a larger perspective.

The mechanism for transfer to the *s*-preterite that I propose is the distribution of palatalised and unpalatalised initials. In the PIE root aorist, the active singular had *e*-grade and the 3pl. *Ø*-grade. Concerning the 1pl. and 2pl. the comparative evidence is not equivocal, but even within Tocharian, the root grades of these forms are difficult to establish. As I argue (4.6.7, p 446), Tocharian A forms of the type 3pl. *tarkar* replace PT **tarkare*, whereas the palatalised singular TA 3sg. *cärk*, TB 3sg. *carka*, was extended to the plural in TB 3pl. *cärkäre*. But even if the evidence is scanty, the easiest is to assume a simple contrast between **carka-* in the singular and **tarka-* in the whole plural for Proto-Tocharian. Thus, we would expect a root aorist to have yielded the stem form **śam-* from **g^wem-* in the singular, and **k^wam-* from **g^wm-* in the plural. On the assumption that – after the loss of the sigmatic *s* – the *s*-preterite had the same plural forms, the two paradigms can have differed only in their root grade in the 2sg. and 3sg., and perhaps in the 1sg. The 2sg. and 3sg. **śam* could easily be replaced by the *s*-aorist forms **śem*, and sooner or later the 1sg., initially also **śam*, was replaced by **kam*.

The idea that the *s*-aorist 1sg. may regularly have had *Ø*-grade (without palatalisation) follows from the *ä*-grade *s*-preterite forms in Tocharian A, which are very difficult to explain otherwise. Although these forms show no unpalatalised initial contrastive to palatalisation elsewhere in the paradigm, it is very likely that their different root grade was the same as the regular *Ø*-grade in *s*-preterites, that is to say, non-palatalising *ə* (4.5.9, p 427).

Whereas the characteristic **ē*-grade of the PIE *s*-aorist was originally at home in the singular active (see in more detail 4.5.9, p 427), the weak grade is normally set up as **e*, not **Ø*. It goes without saying that this discrepancy is probably the most important drawback to the transfer scenario sketched above. The problem is taken up in another perspective in 4.5.3 (p 408), but I can refer to the root allomorphs in *-s*

of ‘put’, which, as I argue, must go back to only two root grades $*d^h\tilde{e}h_1-s-$ and $*d^h h_1-s-$. At this stage of our investigation, we need not be concerned with the origins of this type in Proto-Indo-European, but we may content ourselves with the observation that this peculiar gradation system has parallels among the Tocharian *s*-preterites indeed.

Perhaps the essential question about the preterite of ‘come’ is why it did not remain a root aorist, as the type is continued in Tocharian. Several reasons can be adduced: 1) the verb was *aniṭ*, having no root-final laryngeal, and so it did not exactly match the root aorist subtype that eventually survived; 2) it did not have the regular *a*-subjunctive beside it, but rather the isolated $*\acute{s}am^{'}_{/e-}$; 3) it was certainly influenced by *lat-* ‘go out’.

sub 1) This point is made clearest by asking the reversed question, namely why the root aorist is reflected in the $x|a$ -root preterite. Obviously, the starting point was formed by *seṭ* verbs, where the *a*-reflex of the root-final laryngeal came to be analysed as a preterite marker; then, this *-a* could spread to other verbs, of course. However, ‘come’ just did not become such a preterite, as is most prominently evidenced by its endings, which are of a different set than the regular preterite endings.

sub 2) The $x|a$ -root preterite forms a very solid system with $x|a$ -root subjunctives beside them, and even the present could be of essentially only one of two types: the suffix *e ~ o* or a nasal infix. ‘come’ never had one of these features and so it was apparently not close enough to the $x|a$ -root preterite type to be lined up with it.

sub 3) The preterite of ‘come’ is thematic, i.e. it has the $^{'}_{/e-}$ -suffix, which cannot be inherited from Proto-Indo-European, nor is it possibly due to influence from the *s*-aorist. Since the semantically close *lat-* ‘go out’ has an $^{'}_{/e-}$ -suffix as well, and it must be old there, ‘come’ must have taken over its suffix from ‘go out’. The adoption of the inflexion of ‘go out’ must be the cause that the preterite of ‘come’ did not adopt the characteristic 3sg. suffix *-sa* on the one hand, and no preterite endings on the other. Thus, the 3sg. remained *śem* instead of becoming $**\acute{s}em-sa$ or $**kem-sa$, and e.g., the 2sg. did not become $**\acute{s}em-sta$.

Admittedly, my derivation of *śem* involves a large number of assumptions. However, these all have their parallels elsewhere in the Tocharian verbal system, and it is not necessary to have recourse to new sound laws or special morphological types on the Proto-Indo-European level.⁷⁴⁵ Its advantage is that it accounts for the existence of the *s*-preterite middle and the deviating 1sg. *kamau*, and it opens perspectives on the evolution of the Tocharian *s*-preterite system as a whole.

⁷⁴⁵ As pointed out above, if Kortlandt’s reconstruction of a root aorist with lengthened grade in the 2nd and 3rd persons singular is correct, it accounts for *śem* in a much simpler way.

4.3.2 ‘PUT’

The verb ‘put’ displays a number of irregularities, some of which are unique. The most important are:

- *ə*-reduplication in the Tocharian B subjunctive;
- *e* : *a* root gradation in Tocharian B, *a* : *ā* gradation in Tocharian A;
- a root-final *s* that is found only in some stems;
- defective split-off verbs in both languages.

As is so often the case, a number of forms are difficult to analyse, which has long hampered a correct understanding of the structure of the verbs. An extensive account of both the synchronic state of affairs and the diachronic explanation is given by Hackstein (1995: 56-65). Evidently, the following presentation incorporates his results, and I will only make explicit reference in cases of important divergence.

The stem pattern of Tocharian A is irregular, but nevertheless rather straightforward:

sbj. {tā-}	prs. {tā ^{sā} /sa-}	prt. {ca/tās- ^Ø /(s)ā-}
prt.ptc. <i>to</i>		ipv. {-tā/ās-}

There is only one point where I deviate from Hackstein: he claims that the subjunctive is both {tā-} and {tā^{sā}/sa-} (the latter stem would be identical to the present stem). However, the 3sg.opt.mid. *tāṣitrā* A3a4-5, where the second subjunctive stem is based on, is restored from *tā·itrā* and can also be read *tā(w)itrā*, cf 3sg.opt.(act.) *tāwiṣ* A312a2.⁷⁴⁶ Next to this complete verb, there is an isolated and frozen present participle *tāskmām* ‘like, as’, which presupposes a present stem {tāsk-} or {tāskā-} (Hackstein 1995: 187-190).

The stem pattern of Tocharian B requires more detailed comments, especially since there are in fact some competing stems:

sbj. {tättā-}	prs. {ta ^{sə} /se-}	prt. {te/əs- ^Ø /sa-}	ipv. {-te/əs- ^Ø /(s)a-}
prt.ptc. <i>tättāu</i> , -āṣ*		2nd prt. {tasā-}	2nd ipv. {-tāsa-}
		2nd prt.ptc. <i>tātāsau</i> *, -(aṣ)	

Apart from the competing stems that call for an explanation, there is a number of individual forms that need special comment: 1) forms that seem to prove – again – a second subjunctive stem identical to the present, and 2) alleged present forms based on a stem {tə^{sə}/se-}.

⁷⁴⁶ There is yet another form that could be adduced as proof of the alleged subjunctive stem: “*tāṣimār* Frgm.” (Sieg, Siegling and Schulze 1931: 438). Probably, the fragmentary line they referred to is THT1138b2, which reads /// *rtā ṣi mā* ṛ_~ : ·_~ ///; it could in fact be the caus.opt. to any root in -*rt*.

In Krause's index (1952: 245; see also Hackstein 1995: 62), we find the following forms that are to prove a subjunctive stem {ta^{sa}/se-}: 1sg.sbj. (t)āsau B85a6, 3sg.sbj. tāṣān-ne B255a6, 3pl.sbj. tāseṃ IT92a2, 3sg.sbj.mid. tāstrā B559b1, 3sg.opt. tāṣi IT173b4, inf. tāsi IT258a1. As I will try to show directly below, none of these forms actually proves such a subjunctive stem.

B85a6 = NS355a4

mākte ai(sk)au (uttareṃ | ñā)kte-yokāṃ sāś(uw)e(rśk)e | amāskai rilye ·
mā ś keś (t)āsau ṣaṇ la(kle) | ///

'How can I give [away] Uttara, my dear son of divine appearance who is difficult to let go? I do not pay attention to my own sorrow ...'⁷⁴⁷

Alternatively, Schmidt (2001: 314) takes the rhetorical question to continue with (t)āsau, which is also possible; it would prove that it is a present, of course, since ai(sk)au, which would then be completely parallel, is an unambiguous present form. However, even if Schmidt's interpretation is wrong, there is absolutely no need to take it as a subjunctive. Personally, I find 'I do not pay attention to my own sorrow, (but I cannot give away my own son)' or something similar more plausible than 'How can I give away my son and not pay attention to my own sorrow?'

Although their overall sense is not completely clear, the following lines evidently express a general truth, very probably in the present; there is no need to take tāṣān-ne as a subjunctive.

B255a5-6 (= B254a4)⁷⁴⁸

se timi[a6]rā śaiṣṣentse | san empelle aṇmāntse [9c]
orkāmñāna nraintane | yāmor eñcāl tāṣān-ne : 9

'This is the blindness of the world, a terrible enemy for oneself; in the dark hells the deed takes hold of it.'

The example below precedes the threefold refuge request of the Karmavācanā (triśaraṇa; see Chung 2004: 45), and it probably concerns the five principal interdictions of killing, stealing, sex, lying, and alcohol (o.c.: 46-48). Although I have not been able to identify a precise parallel, and other translations are possible (e.g. 'how they enter battles, thieves ...'), I see no need to take tāseṃ as a subjunctive.

IT92a2

/// -naṃ śaul peri tāseṃ mākte ñke wetanne yānmaskem lykūna [a3]
'... they put their lives in pledge; how thieves enter battles now ...'

⁷⁴⁷ Cf Couvreur (1964: 240).

⁷⁴⁸ Verse: metre 4 x 7 | 7 (4+3 | 4+3).

The content of the following example is highly enigmatic, though without doubt medical. I cannot make sense of the use of *täs-* here, but again there is no need to take this form as an optative rather than an imperfect.

IT173a4

/// *ñantsa pittākānta tāši • e – ///*
 ‘... he put boils ...’

Although the text where the following extract is taken from is very difficult to decipher and understand, this particular syntagm is relatively clear and it must contain an infinitive of *täs-*. As it is a colloquial text, *tāši* could stand for *tāštsi** {*taʃə-tʃəy*} (Peyrot 2008a: 87), which would indeed prove the existence of a subjunctive stem {*taʃə/se-*}.

IT258a1

eñčilan[e] tāši yātkast(a)
 ‘... you ordered to take hold of ...’

Apart from the morphological problem under discussion, this analysis has to cope with three additional difficulties: 1) *eñčilāne* with “stretching” *ā* is by no means regular for a colloquial text (we would expect *eñčilne*), 2) on the evidence of B255a6, cited above, the construction is *eñčil tās-* rather than *eñčilne tās-*, 3) although some <n> and <t> are close in this manuscript, they are on the whole certainly not identical and *n[e]* of *eñčilāne* looks more like *t[e]*. Thus, I would propose to read *t[ā]tāši* instead: *ā*-vocalism seems possible as well, and the unusual spelling <tā> instead of <ta> may have to be classified as a colloquialism.⁷⁴⁹

tāštrā B559b1 is evidently a present, since it is parallel to *yamastrā* B559a4.

In conclusion, none of the forms cited by Krause and Hackstein forces us to assume a second subjunctive stem {*taʃə/se-*}. If my explanation of the colloquial text IT258 is not accepted and *tāši* is a linguistically real form nonetheless, it could be a late creation; as such it would not have special bearing on the analysis of the classical Tocharian B verb. Of the remaining forms with the stem {*taʃə/se-*}, many are found in unclear contexts, but some have evidently present function; as no one has claimed that they are subjunctives (or optatives), I will not discuss these here.

In spite of Schmidt’s well-founded refutation (1974: 59; 1975: 289), Hackstein claims that beside the Tocharian B present stem {*taʃə/se-*}, there is also a variant {*taʃə/se-*} (1995: 62). The relevant forms are *taštar-ñ* B84a1 and *tšentar* B197a1 (would be for *tšentār* {*təsé-ntər*}). I fully agree with Schmidt that *tšentar* is found “in undurchsichtigem Kontext” (l.c.). Unfortunately, the manuscript is lost, but evidently

⁷⁴⁹ It is less likely that an original *tāttātsi* should have developed into *tetāši* with *e* for *ā*, but cf *seswa* for *sāsuwa* (Peyrot 2008a: 114; forth.b).

there was a problem with the reading, as the preceding *k·ly·p* is still waiting for an interpretation, too. Perhaps the word division is wrong: the *p* is written together with *tsentar*, whereas it is more usual that words are written separately in this manuscript. I would not exclude that the *t* is epenthetic as in *svabhāptsa* {svabhāp-sa} in the same line, so that *-ptsentar* could be the last part of a 3pl.mid. of a *sa/se*-present to a root in *-p*.

Conversely, it is very plausible that *taṣtar-ñ* is a 2sg.prs. of *tas-*, and so it seems to stand for /táṣtar-ñ/ rather than expected *tāṣtar-ñ* /tāṣtar-ñ/. Although the manuscript is classical and its spelling is quite regular in general, there are some problems with its *a*-vowels. These concern mainly <ā> for unaccented /a/, and sometimes <a> for unaccented /ə/, but still I would like to attribute the spelling *taṣtar-ñ* to this fluctuation and take it as /táṣtar-ñ/, despite its spelling.⁷⁵⁰

As to the competing stems with the root variant *tasa-*, these are simply there and cannot be explained away. However, their distribution is highly peculiar: they are all middle, and they are not found for all stems. If they formed a split-off verb, that verb would be defective in a very unusual way. For the preterite participle, the distribution is perhaps most striking: *tättā_u* is well attested, but *tatāsau* is attested only once in a late text, where it is even partly restored: *tatās(aṣ)* B108a2. Nevertheless, the restoration in itself is plausible, cf Pinault (2008: 164). For the preterite middle, the situation is reversed: *tasá-* is attested at least 6 times, compared to *tassá-* 3 times. If there is a difference between the two, it is probably one of meaning: *tasá-* means ‘show’, apparently both transitive and intransitive, whereas *tassá-* in its three occurrences seems to be normal ‘put’. Probably, the imperative stems *-tása-* and *-tāssa-* had the same semantic difference, but with only three fragmentary forms in total, this is difficult to prove.

Now that the synchronic stem patterns have become clearer, the reconstruction of the Proto-Tocharian verb is relatively straightforward. The two presents A {tā^{sa}/sa-} and B {ta^{se}/se-} of course reflect a Proto-Tocharian present **ta^{sa/se}-*. With loss of initial reduplication in Tocharian A, the subjunctives A {tā-} and B {tättá-} point to a Proto-Tocharian subjunctive **tāta-*. Likewise, the preterite participles must go back to **tāta-w*; the geminate *tt* is more likely to be the result of antilenition strengthening (cf Hitch 1993: 118-127), than restoration of the reduplication, since it is not at all clear on what basis that unique reduplication should have been restored from **tta-* (pace Hackstein 1995: 63). On the one hand, the palatalisation in the Tocharian A preterite active seems to be primary compared to its lack in Tocharian B, where the *t-* can easily have been restored (e.g. Ringe 1990: 186). On the other, it is striking that the imperative *ptas* shows no palatalisation. With the small number of imperative forms attested, it is difficult to decide whether the palatalisation can

⁷⁵⁰ Schmidt’s explanation is that the short vowel may have been taken over from other forms in the paradigm where it was regularly unaccented. This is difficult to disprove, but such analogies are not frequent in Tocharian B; if so, I would opt for orthographic “Systemzwang” rather than a linguistically real development.

have been removed analogically in the imperative only: in the *s*-preterite, initial palatalisation is found more often, but it is not clear whether it regularly combines with initial palatalisation in the imperative, too.

The reconstruction of the competing preterite stems *tassa-* and *tasá-* is more complicated. Hackstein argues that the stem *tasá-* is secondarily derived from *tes-* (with *a*-mutation), a root variant found in the active of the *s*-preterite and the singular active of the imperative (p 59-60).⁷⁵¹ However, no motivation or parallel is given; his remark that *tasá-* cannot be derived from the present {*ta^{sə}/se-*} is true in itself, but of no use in this context, since it presupposes that *tasá-* is somehow secondary in the first place: it does not prove that *tasá-* is secondarily derived from *tes-*.

In my view, the proposed derivation path is not logical at all, and if the stem is really late, it is doubtful whether we would actually expect *a*-mutation. Further, it does not explain why the new stem was left like that instead of being accompanied by for instance a subj. *tása-*, nor does it account for the specialised meaning or its middle inflexion.

Much easier is it to assume that *tasá-* is the old middle stem.⁷⁵² This explains at once that it is confined to the middle preterite (and the closely related middle imperative), and that its meaning is specialised. The creation of the “regular” middle stem *tassá-*, on the other hand, is of course exactly what we would expect: it follows the normal pattern of a middle with *ə*-grade next to an active with *e*-grade. I do not exclude that the introduction of the regular middle forms occurred independently in Tocharian A and B, but it is probable that Proto-Tocharian had two different middles; perhaps the semantic differentiation had already started by that time. Of course, the fact that Tocharian A abandoned the irregular **tasa-* does not need further explanation, as in this language the verb patterns are clearly more strict and regular than they are in Tocharian B, and there are virtually no overlaps between verbs or “fuzzy” stems (compare, e.g. the schemes of *lākā-* and its Tocharian B cognate in 2.5.5, p 78). Apparently, *tasa-* survived in the imperative as well, but to the isolated preterite participle *tatāsau* we should not attach too much importance, as it is from a late text. At least it proves that the stem *tasá-* was still productive.

Although the explanation of the marginal stem *tasa-* may seem a peripheral problem, it receives its due weight in the light of Hackstein’s claim that the present {*ta^{sə}/se-*} cannot be connected to the preterite because the stem allomorph *tas-* is not found there (1995: 65). Whereas the ultimate source of the subjunctive **tata-* is evidently the Proto-Indo-European reduplicated present, it is exactly the origins of the present and the preterite that are debated.

Apart from the question of the function, the derivation of the subjunctive **tata-* is straightforward: the PIE present **d^he-d^heh₁-*, **d^he-d^hh₁-* is well attested, e.g. Gk. 1sg.

⁷⁵¹ Not only in the singular of the preterite active, as he states.

⁷⁵² See Pinault (2008: 596): “certainement plus ancien, parce qu’irrégulier en synchronie”.

τίθημι, 1pl. τίθεμεν ‘put’ or Ved. 3sg. *dádhāti*, 3pl. *dádhati* ‘id’ (LIV2: 136-138). It is the zero grade variant **d^he-d^hh₁-* that would yield the right Proto-Tocharian form, obviously with restoration of the reduplication initial from **cata-* to **tata-* (if the preform was rather **d^hi-d^hh₁-*, the development would have been the same⁷⁵³). The only formal problem is that all forms show the final *-a*, except for the Tocharian B opt. {taccáy-}. As it is irregular morphologically, this optative formation must reflect some phonologically regular development. Perhaps the preform was **d^he-d^hh₁-ih₁-*, possibly with loss of the first **h₁* through dissimilation, or otherwise with prevocalic loss in the sequence **-d^hh₁i-*. It is also conceivable that the root had full grade: *-d^heh₁-ih₁-* would probably also yield the attested stem form.

All other forms are built on a grading root **tās-* with different suffixes. The root form **ces-* points to **tēs-*, in turn from **d^heh₁-s-* or **d^hēh₁-s-*, whereas **tas-* must go back to **d^hh₁-s-*. Whether Tocharian A *ptas* requires an old root variant **tes-* is unclear, but if so, it is very probably analogical, i.e. from **ces-* after **tas-*; it can hardly go back to an original **d^hh₁-os-* or something similar. The age of the root form **tās-* is uncertain, and it must be analogical: the only pre-form it could be compatible with is **d^hh₁-es-* with analogical depalatalisation.⁷⁵⁴

Hackstein derives the preterite from an *s*-aorist and the *s*-present from a desiderative. His argument to derive the preterite and the present from different sources is based on the idea that the *a*-vocalism of the present is not found in the preterite, as I mentioned above. He rightly observes that the *s*-aorist at the basis of the Tocharian *s*-preterite must replace the root aorist **d^heh₁-* / **d^hh₁-* actually to be reconstructed for the proto-language. He further reconstructs the desiderative as **d^heh₁-s^e/o-* on the basis of Gk. θήσω, suggesting that the zero grade that we actually need, i.e. **d^hh₁-s^e/o-* or its outcome, was introduced from the reduplicated present (which became the subjunctive in Tocharian). According to him, the Tocharian *s*-present was rather a subjunctive that came to be used as a present as well, which enables him to derive that “*s*-subjunctive” from the PIE desiderative directly.

Hackstein’s argumentation suffers from two internal problems. First, he does not make clear why e.g. **d^hh₁-s^e/o-* is not a possible reconstruction for the Proto-Indo-European desiderative, which would make the derivation of the *s*-present (*s*-subjunctive in his conception) much easier. Second, the introduction of the zero grade in the desiderative root after the present is difficult to accept with such different root forms as **d^he-d^hh₁-* and **d^heh₁-s^e/o-*, and it falsifies his argument that the *s*-present cannot be derived from the *s*-preterite because of the deviating vocalism, since a

⁷⁵³ On the basis of the Tocharian A 3pl. ending *-ñc* (see 4.2.1, p 345), we have to assume that **d^hi* and **d^he* both yielded **cə* at first.

⁷⁵⁴ TB *tasem* B255b5 is from an archaic text, representing /tāsen/, not /tāsen/ (Schmidt 1974: 59; Peyrot 2008a, e.g. 33, 220); as argued above, the Tocharian present does NOT show a root variant *tās-*. Thus, Kortlandt’s reconstruction of an athematic *s*-present form **d^hh₁es-* (1994: 64; repeated 2008: 228) cannot be substantiated with Tocharian present forms.

similar analogy would account for the “incompatible” difference in the respective root vowels.

Moreover, Hackstein’s analysis is at variance with my own account for two reasons. First, the root vowels of the present and the preterite are not incompatible at all, as the root vowel *a* of the present is found in the old middle stem of the preterite, *tasa-*. Second, the *s*-present is only a present, not a subjunctive: **ta^{sə}/se-* is not a subjunctive in Tocharian A, nor in Tocharian B, and most probably not in Proto-Tocharian either. There is no reason to assume that PT **təta-* was anything else than a subjunctive.

Thus, it seems best to rethink the whole matter, considering the following points:

- the Tocharian subjunctive derives from the Proto-Indo-European reduplicated present;
- the Proto-Indo-European root aorist is not inherited as such, and probably it would not have survived, as **ce-* / **ta-* is not “fit” for Tocharian inflexion;
- the Tocharian present **ta^{sə}/se-* replaces the old Proto-Indo-European present: either that old present became a subjunctive first and dragged the new present into present function, or the new present pushed the old present into subjunctive function;
- the Tocharian present stem **ta^{sə}/se-* and the preterite stem **ces-* / **tas-* are formally very close: they are lacking reduplication, have a root-final *-s* and share the root grade *tas-*.

Although it is not immediately clear from the verb ‘put’ alone, it appears that in general the Tocharian subjunctive has little affinity with the Proto-Indo-European present (see in particular 4.4, p 377). In addition, the Tocharian subjunctive and preterite are normally very close, whereas the present stem contrasts with both. ‘put’ deviates from this general tendency, which calls for an explanation. Thus, I consider it unlikely that the original PIE present first became a subjunctive and then *dragged* the new *s*-formation into present function: there is no morphological reason, nor a functional motivation why the present would turn up as a subjunctive. Instead, I would suggest that the original PIE present was *pushed* into subjunctive function by the newly formed *s*-present. This, in turn, means that the *s*-present must contain a present-forming element.

In spite of the archaic outlook of Tocharian ‘put’, the stems in *-s* must be secondary: at least the preterite must replace an old root aorist and for the present there is no formation to be compared directly at all. Consequently, the *s*-present and *s*-preterite must have been formed after the productive pattern of *s*-presents and *s*-preterites. As argued in 4.5.6 (p 419), the *s*-preterite continues the Proto-Indo-European *s*-aorist whereas the *s*-present ultimately goes back to a *sk^e/o-*present through dissimilatory loss of the *k*. Following Couvreur, I assume that *k* was lost in certain clusters, at least in the cluster **ksk*, but certainly not when *sk* followed a vowel as in *tas-*. Thus, the *s*-present ~ *s*-preterite system must have been taken over after the rise of the *s*-presents. Since I assume that the *s*-presents continue *sk*-presents, that is, a category with explicit present value, it is no problem to assume

that the *s*-present pushed the old reduplicated present into its new subjunctive function.

In this way, the problem of the explanation of the *s*-stems of *tas-* is for a large part relegated to the *s*-present and *s*-preterite system as a whole. Nevertheless, the reconstruction of *tas-* is in fact important. First of all, it shows us very clearly that at the time the *s*-system was adopted, the root grades were $*\bar{e}$ and $*\emptyset$: $*tas-$ must reflect a real $\emptyset$ -grade $*d^h h_1 s-$ and cannot result from any kind of secondary depalatalisation of an *e*-grade stem as could still be a possibility in roots without (internal) laryngeal. Of course, $*ces-$ could theoretically also reflect *e*-grade, as $*d^h \bar{e} h_1 s-$ and $*d^h e h_1 s-$ would both become $*t\bar{e}s- > *ces-$, but there the roots without internal laryngeal show that was really $*\bar{e}$, not $*e$. Second, the fact that the present and the preterite stem are so close in form suggests that they were actually felt like *one* stem, which is very important for the understanding of the $\emptyset$ -grade forms of the preterite. Apparently, the *s*-present stem had become identical with the $\emptyset$ -grade variant of the preterite; thus, that $\emptyset$ -grade can have been taken over from the present, where it was regular (on this problem, see in detail 4.5.3, p 408, and 4.5.6, p 419). Third, it raises important questions about the relative chronology of the developments, a point to be explained in more detail.

The fact that the final *-s* is found throughout the paradigms, and not just in the middle preterite and the 3sg. of the active shows that the adoption of the *s*-system occurred when the *s* was still felt to be part of the *s*-present stem, not of the ending. Likewise, the *a*-reflex of the interconsonantal $*h_1$ proves that *a* was still the productive $\emptyset$ -grade of roots with an internal laryngeal, which in turn suggests that the laryngeal was still preserved either in the $\emptyset$ -grade or in the $\bar{e}$ -grade variant, or perhaps in both. The fact that the present is in *-s*, not *-sk*, suggests that it was adopted after the simplification of *ksk* to *sk* (see 4.5.6, p 419), but the isolated TA *tāskmām* (see above) seems to reflect a stage before the simplification of *ksk* to *ks*.

As pointed out by Hackstein (1995: 189), there is a possibility that the stem of *tāskmām* is of Proto-Indo-European age because it is mirrored by Hitt. *zikke/a-*, the imperfective of *dai-i* / *ti-* 'put'. As shown by Kloekhorst (2008b: 808), the older variant *zaške/a-* proves that the imperfective was not derived from *dai-i* / *ti-*, but directly from the root. Nevertheless, the imperfective is very productive in Hittite, and the *sk*-present is certainly not necessarily old. If *tāskmām* is inherited from Proto-Indo-European, the $\emptyset$ -grade *a* could have spread from there, which would allow for a later dating of the rise of the zero grade in the *s*-preterite system. If *tāskmām* is not directly inherited, it must be relatively old on any account because it seems to reflect the older shape of the *s*-present suffix. In the latter case, we have to assume that 'put' adopted a system with an *s*-preterite and an *sk*-present, where the *sk*-present was at a later stage ousted by the productive *s*-present, except in this marginalised form. Alternatively, we could hypothesise that the *s*-system already contained *s*-present forms, but with *sk*-forms side by side. Although difficult to prove, this would seem to suggest that $*-ksk'\bar{a}-$, the $\bar{a}$ -variant, lost its second *k* before it was lost in the *e*-variant $*-kske-$.

4.3.3 ‘KNOW’

PT **kna-* ‘know’ is attested in TA *knā-* ‘know, understand’ and probably in TB *nana-* ‘recognise’. Both the synchronic situation of especially TA and the history of the verb are complicated and have led to much debate. Hackstein’s study (1993), whose results are incorporated in the following, has been a breakthrough. Best attested is TA *knā-*, which has a unique stem pattern with a *na*-prs. and an *s*-prt.: *nā*-prs. {*knāna-*} in 3sg.act. *knānaṣ*, 3pl.act. *knāneñc*, prs.ptc. *knānmām*, *n̄*-ipf. {*kñāññā-*} in 3pl.mid. *kñāññānt*, *n̄ā/a*-sbj. {*kñāññ-*} in 3sg.mid. *kñāññtār*, *s*-prt. {*kñas-*} in 1sg.act. *kñasu*, 2sg.act. *kñasäṣt*, prt.ptc. *kākkñāññu*. Of TB *nana-*, only a few forms are attested and their interpretation has long been problematic. Tamai’s identification of *nanāṣale* as a gloss to Skt. *parijñeyah* in Or15009/89 (2009: 661) is of utmost importance. *parijñeyah* means “zu wissend, zu kennend, zu erkennend” (SWTF, III: 86, col. 2), which proves at once that the present stem was {*nanā^{ssə/ske}-*}, since it is only the present gerund that conveys necessity, and it confirms the meaning ‘recognise’ argued for by Schmidt (1994b: 272) instead of, or perhaps next to traditional ‘appear’ (thus e.g. Adams 1999: 333). Consequently, 3sg.mid. *nanātār* is a subjunctive. A *x|a*-root preterite is evidenced by 3pl. *nanāmte*, whereas 3sg.prs.-sbj. *nānāṣṣām-* must be from a causative 2 ‘show’.

The reconstruction of the Tocharian B forms is fairly straightforward: the v.adj. *nānāmo* (arch.), normally derived from the present stem, and the medial accent {*naná-*} rather than ***{nána-}* prove that *nana-* was originally a present, and the *ssə/ske*-present must be recent. However, in view of the preterite *nana-*, it is necessary to set up the root as *nan-* or *nana-*. As the prt. *nana-* to a *na*-prs. *nana-* cannot be original, the only thing we can reconstruct from the TB forms is a *na*-prs. *nana-*; all other stems are secondary. TB *nana-* can be connected with TA *knā-* by assuming a development *#kn-* > *#n-* for PTB; the meaning ‘appear’ could have been made possible by the middle usage of the verb.

The reconstruction of the TA forms is more difficult. The *nā*-prs. {*knāna-*} can hardly have been built on the other stems, and since it agrees with the only stem reconstructable from TB, we can reconstruct a PT prs. **knana-*. The other old stem is probably the *s*-preterite, and for the same reasons: it cannot have been created on one of the other stems, so that we can reconstruct a PT *s*-prt. **kñes-*. All other TA stems are difficult to explain, but they must nevertheless be secondary. It is not clear whether a subjunctive **knā-*, in principle expected next to the *nā*-prs. *knāna-*, once existed. If so, it would be understandable that this formation was felt to be too short so that it was extended with the suffix of the most productive subjunctive category, the *n̄ā/a*-sbj. If there was no *ā*-sbj., it is also imaginable that a *n̄ā/a*-sbj. **knāññā/a-* was formed to the *nā*-prs.

The regular ipf. to the *nā*-prs. would have been **knāññā-*. Probably the *n* in these forms assimilated to the following *n̄* to yield *kñāññ-* and *kñāññā-*, and the *n̄* of the *s*-prt. *kñas-* may have favoured this assimilation. On the basis of the ipf. and the sbj., the prt.ptc., which should regularly be **kakñu* or **kaknu*, must have been reshaped to

become the attested *kākkñāññu*, i.e. as if it were formed to a prt. *kñāñna-*. If the older prt.ptc. was *kaknu*, this replacement has a clear motivation, since *kaknu* is well attested as the prt.ptc. of *kān-* ‘come about’. If the creation of *kākkñāññu* preceded the introduction of *ñ* in the sbj. and ipf. stems, and it first had the shape **kāknāññu*, the introduction of the *ñ* may have been favoured by this form too, since here *n* and *ñ* were in especially close contact.

Evidently, PT **kna-* goes back to PIE **ǵneh₃-* ‘know’, attested in all major branches of Indo-European (LIV2: 168-170). **ǵneh₃-* certainly formed a nasal present, which is attested a.o. in Ved. *jānāti* ‘he knows’, YAv. *-zānənti* ‘they recognise’ and Lith. *žinóti* ‘know’: PT **knana-* is without doubt to be identified with these formations. The question is how exactly the form **knana-* came about, since if it is projected back, it seems as if it contained two laryngeals instead of the single one we expect in a regular nasal present **ǵn-n(ē)-h₃-*, which would yield **kna-*. This **kna-* can have been reshaped to **knana-* because a root *k-* was too short, but it is not entirely clear on what model the *na* would have been reintroduced: either the root *kna-* must have been found in other stems as well, so that *k* in *k-na-* was replaced by *kna-* to yield *kna-na-*, or the suffix *na* must have been still visible somewhere, so that *kna-* was enlarged with *-na* to become *kna-na-* (cf Hilmarsson 1991a: 125). It is also possible that already in PIE the double *nn* was simplified, and subsequently the present was reshaped to **ǵnh₃nh₃-*. The same doubling is namely found in Gm. **kunnan* ‘know, can’ and Ved. *jānāti*, but similar replacements can of course have taken place independently and more than once.

The existence of an *s*-aorist or *s*-prs. next to the nasal present and the root aorist (cf Lat. *(g)nōvī*, Gk. *ἔγνων*, Ved. 2sg.opt. *jñeyās*) is hotly debated. Sigmatic formations are attested in Ved. 1sg.aor. *ajñāsam* and Hitt. *kanezi* ‘knows’. The Toch. *s*-preterite {*kñas-*} has played an important role in the discussion about “Eichner’s law”, which states that PIE long **ē* was not coloured by a following laryngeal (Jasanoff 1988b). Indeed, a palatalising TA *a* grade normally goes back to a PT palatalising **e* grade, which projected back derives from PIE **ē*, so that one would reconstruct (late) PIE **ǵnēs-* for PT **kñes-*. However, as soon as the laryngeal was vocalised in the *nā*-present, the *ē*-vocalism might have been restored in **kñas-*, if that is what one would expect as the phonologically regular reflex of **ǵnēh₃-s-*. On the other hand, I fail to see why **ēh₃* and **ōH*, perhaps even including **ō* (?), would have merged at all in *Proto-Indo-European* if, with Lubotsky, **o* and **h₃e* have different reflexes in Indo-Iranian (1990). From this perspective, not-colouring of **ēh₃/* to **[ōh₃]* or **[ōh₃]/* cannot be called a sound law: **ēh₃ > *ē > PT *ē* could be just a phonological development of Tocharian.

4.3.4 ‘GO’

The verb for ‘go’ certainly deserves ranking among the irregular verbs. In both languages, it is part of suppletive systems, and in Proto-Tocharian it was certainly defective. In Tocharian A, it supplies the present (including imperfect) of *kālkā-*,

whereas in Tocharian B it is a present-subjunctive (including imperfect; on its suppletive roots, see 2.5.5, p 78).

In Tocharian A, the present is formed from a straightforward {y-}, i.e. 1sg. *yām*, 2sg. *yāt*, 3sg. *yāš* etc, but the Tocharian B present is irregular: it has a unique 1sg. ending *-m* and an alternation between the stems {y-} and {yən-}:

{y-}		{yən-}	
1sg. <i>yam</i>	inf. <i>yatsi</i>	1pl. <i>ynem</i>	prs.ptc. <i>ynemane</i>
2sg. <i>yat</i>	ger. <i>yalle</i>	3pl. <i>yanem</i>	ag.n. <i>ynuca</i>
3sg. <i>yam</i>	vn. <i>yalñe</i>		ag.n. <i>yneñca</i>
2pl. <i>yacer</i>			v.adj. <i>ynamo</i>

With Hackstein (1995: 304-305), the explanation of this distribution is obviously that the 1pl. and 3pl. forms, which would have merged with the 1sg. and 3sg. respectively, were reshaped. The basis was evidently *yən*, the synchronic form of the 3sg. and the pre-form of the 3pl. Probably, the 3pl. was reshaped with the new ending *-en* extracted from *ʔ/e*-paradigms, *yən* >> *yänen*, and then the 1pl. was formed on the new stem *yən-* after the 3pl. It is a bit surprising that the *n* spread even to nominal forms, and it is often argued that the forms with *n* reflect a different formation; on this, see further below.

The etymology of the verb for ‘go’ is clear: it is to be connected with PIE **h₁ei-*, which formed a root present, witness Ved. *éti*, *yánti*, Gk. εἶμι, OLith. *eimi*, OPruss. *ēit*. Evidently, the original root present is reflected in the Proto-Tocharian present-subjunctive *yə-*; the pl. stem **h₁i-*, which regularly became **yə-*, was probably generalised, as the sg. stem **h₁ei-* would have yielded **yəy-* > TB *i-* (Adams 1999: 61).

As mentioned above, it has been argued that the *n*-forms found in Tocharian B prove the existence of a second formation with *n* that was conflated with the root present (e.g. Adams 1999: 61). Although this idea is difficult to disprove, the clear functional load of the *n*-forms suggests a recent formation instead. If any of the *n*-forms should be old, I would opt for the nominal forms *ynamo*, *yneñca* and *ynuca*, which are without doubt most distant from the finite verb. However, had they been formed from *y-*, they would certainly have been rather short and difficult to recognise, i.e. ***y(a)mo*, ***yeñca* and ***yuca* would have been liable to analogical reshaping.

For some reason, it is often thought that the *uca*-agent noun is formed from the preterite participle (e.g. Krause 1952: 44), which has led to the conclusion that *ynuca* points to an older preterite participle **ynu* (e.g. Winter 1992: 132). However, forms like sbj. {wáya-}, prt. {wayá-}, prt.ptc. {wa-wáya-w} and ag.n. *wayauca* {waya-wca} prove that there is no special relation between preterite participle and *uca*-agent noun: the sbj. and prt. are also built on *waya-* and the agent noun lacks the reduplication syllable of the preterite participle. Thus, *ynuca* is no evidence for an older preterite participle **ynu*. A second locus of the participle *ynu* is thought to be Tocharian A *maltowinu* ‘first’ (Winter 1992: 132; 1994a: 299-300). Although the

connection between TA *malt**, suggested by the adverb *malto* ‘first’, and TB *melte* ‘elevation’ is credible enough, the identification of the second part of *maltow-inu* as the preterite participle of ‘go’ is by no means self-evident and heavily depends on the identification of the same participle in Tocharian B (against which I argued above). After all, it is even possible that the morphological analysis should rather be *malto-winu*, as per Sieg, Siegling and Schulze (1931: e.g. 200).⁷⁵⁵

The verb for ‘go’ is further irregular because it has an anomalous imperfect, which it shares with the verb for ‘be’. The completely parallel formations in Tocharian A and B show that this formation must be of Proto-Tocharian age at least: TA 1sg. *yem*, 2sg. *yet*, 3sg. *yeş*, TB 1sg. *yaim*, 2sg. *yait*, 3sg. *yai* with parallel forms of ‘be’, i.e. TA 1sg. *šem*, TB *šaim* etc. (Sieg, Siegling and Schulze 1931: 384-385). Because of the formant *-y-*, these imperfects are usually connected to other *y*-imperfects and optatives, and derived from an old optative (e.g. Pedersen 1941: 206-207; Winter 1994a: 294). As an alternative, Kortlandt has proposed to derive *yai* etc from an old imperfect **ēit* (1996: 172), which accounts for the fact that *yai* is largely confined to imperfect function, unlike regular imperfect-optatives. However, this derivation depends on the preservation of the imperfect as such, including the augment, for which there is no other evidence. As the explanation of *yai* and *šai* involves the discussion of a large number of other forms and a good deal of complicated reasoning, I have treated these imperfects elsewhere (Peyrot forth.d.).

Further forms of interest are the Tocharian A imperatives sg. *piş*, pl. *pic*, *picäs*, which may contain the root *y-*, but since they are otherwise isolated, they are of no direct relevance for this study. Likewise, the Tocharian B preterite participle *yku*, *ykuweş* must contain a different root or some root extension, but the details do not concern us here (for a suggestion, see Adams 1999: 610).

4.3.5 ‘GO OUT’

The irregularities of the verb ‘go out’ concern unusual root allomorphs, and the isolated types for the subjunctive in Tocharian A and the preterite in both languages. Although both languages display irregularities, these match only to a limited extent.

In Tocharian B, the root variant for the present and the subjunctive is *länn-*, the present being {*lännə*^{ssə}/*ske-*} and the subjunctive just {*länn-*}. The remaining stems have *lät-*, i.e. prt. {*lə*^{cə}/*te-*}, prt.ptc. *ltu*, *ltuweş*; the imperative is not well attested, but the pl. *platstso* {*pə-lät-sə*} has the stem {-*lät-*}. The preterite is special because it has the shape of a present (see 2.2.2, p 31).

In Tocharian A, most stems are built on the root form *länt-*. It is seen clearest in the present {*läntä*^{sä}/*sa-*}, but it is also found in the subjunctive {*läñcä*/*a-*}, where the root-final *nt* is palatalised. As the most frequent variant of the preterite participle,

⁷⁵⁵ The restoration of *o* in the expected **maltawinu*, after the adverb *malto*, is plausible in itself.

lantu, has an unparalleled combination of *a*-grade and lack of reduplication, it probably developed out of *lalntu*, attested twice, by sound change. If the third variant, *laltu*, which is attested only once, is not another simplification of *lalntu*, it could be a regular {la-lāt-w} formed from a root form *lāt*-. The root allomorph *lāt*- is further attested in the preterite {lāc-, lācā-}, evidently with palatalised root-final.

The Proto-Tocharian preterite is without doubt the easiest to reconstruct because it is so isolated in Tocharian B that it must be old. On the other hand, the Tocharian A formation can be understood as a straightforward transfer to the more frequent *x|ā*-preterite type. Thus, the Proto-Tocharian preterite was **lātʰ/e-*, which was continued in Tocharian B, but reshaped in Tocharian A.

It is commonly agreed that the isolated Tocharian B present-preterite reflects a thematic aorist (e.g. Pinault 1994: 192-203; LIV2: 248), evidenced by especially OIr. 3sg. *luid* ‘went’, Gk. 1sg. ἦλυθον ‘came’, Ved. 3sg. *áruhat* ‘has grown’. The formations just mentioned point to **(h₁e)-h₁lud^{h-e/o-}*; this reconstruction receives firm support from Tocharian, whose **lātʰ/e-* must be old, certainly in view of the problems connected with the reconstruction of parallel ‘come’ (see 4.3.1, p 351).⁷⁵⁶

The synchronic analysis of the Tocharian B subjunctive has been clarified by Pinault (1994: 129-135) and Hilmarsson (1991b: 62-63; see also Hackstein 1995: 308).⁷⁵⁷ Pinault discovered the 1sg. *lannu* and Hilmarsson recognised that this form does away with Krause’s misconception of a class 7 *ñʷ/e*-subjunctive (Krause 1952: 140-141; evidently inspired by the *ñā/a*-subjunctives of Tocharian A) because it proves a subjunctive stem {lānn-} instead. In view of the persistent misunderstandings involving this stem, it is perhaps practical to recapitulate the paradigm: 1sg. *lannu* {lānn-əw}, 2sg. *lant*⁷⁵⁸ {lānn-t}, 3sg. *lam* {lānn-n}, 3pl. *lam* {lānn-n}, inf. *lantsi* {lānn-tʰəy}, vn *lalñe* {lānn-lñe}. All forms with *ñ* or *ññ* are optatives – they do not prove a stem *lāñ(ñ)*- for the subjunctive (*lāññam* IT44a2 in a leaf full of errors is a mistake for 1sg.opt. *lāññim* {lānn-ʰəy-m}).

Hackstein saw the parallelism of {lānn-} to the type 3sg.sbj. *aum* {awn-n} : 3sg.prs. *aunaššām* (l.c.). The parallelism is even greater than he thought, since *aunaššām* has a suffix *ššə/ske*, not *nəššə/ske* (as the root is *awn*-, not *aw*-). This is, I think, the key to the explanation of the Tocharian B root variant *lānn*-. synchronically, the root is *lānn*- with a root subjunctive and a *ššə/ske*-present, but diachronically the present suffix must have been *nəššə/ske*. This present suffix *nəššə/ske* is without doubt parallel

⁷⁵⁶ The isolation of the thematic aorist in Proto-Indo-European suggests that this thematic aorist ultimately goes back to a root aorist (according to Kortlandt 2000b: 48 preserved in Arm. 3sg.aor. *el* ‘(s)he went out’), but it must have existed already in the proto-language; for Tocharian, a root aorist can offer no explanation, since there is absolutely no model for secondary thematisation (pace LIV2 l.c.).

⁷⁵⁷ Pinault’s article is an adaptation of a lecture held at the the 1990 Berlin *Arbeitstagung* on Tocharian. Although it was published only in 1994, Hilmarsson (1991b) could already make use of its findings.

⁷⁵⁸ Attested THT1451b.a2; B384a4 is to be read *lantwe*.

to that found with *yəp-* ‘enter’, *kəm-* ‘come’, and probably also *təm-* ‘be born’, and it must have originated in ‘come’ (see 4.3.1, p 351, and 4.5.7, p 425). In view of the causative root *lənt-*, I suppose that the suffix *nə^{ssə}/ske* was added to a root *lənt-*, resulting in *lənn-* (such a development seems to be commonly accepted, e.g. Hackstein 1995: 309). For Tocharian B, we may even derive the root *lənt-* from *lət-* through the suffix *nə^{ssə}/ske*, as on the evidence of *käntam* for expected *katnam*, *tn* was metathesised to *nt* (Peyrot 2008a: 151). Thus, the present {*lənnə^{ssə}/ske-*} can be derived from *lət-* with adoption of the suffix *nə^{ssə}/ske* and subsequent restoration, even though synchronically the present is {*lənn-ə^{ssə}/ske-*} with a *ə^{ssə}/ske-* suffix.⁷⁵⁹

It is commonly accepted that the derivation of the present {*lənnə^{ssə}/ske-*} from the root *lət-* needs the assumption of a *nə^{ssə}/ske-* suffix at a certain stage: whatever its ultimate origin, this suffix is clearly there in the verbs of motion ‘come’ and ‘enter’. The fact that the suffix was obscured by the phonological development to **ləntə^{ssə}/ske-* is shown by the reanalysis of the root as *lənt-*, clearly proved by the extension of the latter root variant to the causative. Once the suffix was no longer recognisable, it could be reintroduced yielding the attested *lənnə^{ssə}/ske-*. When the root variant *lənn-* came about as the result of yet another instance of reanalysis of the present *lənnə^{ssə}/ske-* as *lənn-ə^{ssə}/ske-* instead of *lən(t)-nə^{ssə}/ske-*, it was apparently introduced into the subjunctive, no matter how the subjunctive was formed at that time. It is even conceivable that the subjunctive was completely formed after the pattern *aum* : *aunaṣṣām*, which is, to be sure, the pattern it follows synchronically. Otherwise, it may have been parallel to *yopām* : *yänmaṣṣām*, with restoration of the root, either from *lət-* to *lənn-*, or from *lənt-* to *lənn-*.

The root *lənt-* may be as old as Proto-Tocharian, since we find it in Tocharian A as well. However, a metathesis *tn* > *nt* is without parallels in Tocharian A. Rather, *tn* yields *n*, on the evidence of prs. {*räynä-*}, {*täynä-*} and {*knä-*} of *räytä-*, *täyñä-* and *kätä-* (Sieg, Siegling and Schulze 1931: 357; see 2.5.8, p 90). Theoretically, I see two ways to save the metathesis as a common development: 1) metathesis took place and the element *nä* was restored afterwards, with subsequent cluster simplification, *kätnä-* > *käntä-* >> *käntnā-* > *kännā-* > *känā-*, or 2) metathesis took place, but was undone, and at a later stage *tn* became *n*. I opt for the second possibility because I find it unlikely that with restoration of the *nä*-element the new root *käntä-* would have been kept (the case of *lənt-* ~ *lənn-*, for which I assume exactly that, is different because the verb fits no pattern and the preterite is completely isolated). For the second scenario, we could adduce parallels of *kn* > *nk*, a metathesis that has certainly left its traces in Tocharian A (4.6.4, p 440).

However one wishes to explain the infixed nasal in Tocharian A (and in Tocharian B; a common pre-form *lənt-* is probable anyhow), it must be a Tocharian innovation, pace LIV2, where a nasal present is posited on the basis of Tocharian alone

⁷⁵⁹ Thus, the metathesis of *tn* to *nt* and subsequent assimilation of *ntn* to *nn* is different from the assimilation of *tñ* to *ñ* in TB *pañäkte* ‘Buddha’ < **pät-ñäkte* (pace Winter 1987: 302).

(p 248). A derivation of the internal nasal from the $n\partial^{ss\partial}/_{ske}$ -suffix is further made likely by the fact that the verb is intransitive ‘go out’, which perfectly fits the class of verbs with a $n\partial^{ss\partial}/_{ske}$ -present, whereas we would expect an original nasal present to be transitive (Hackstein 1995: 310).

The fact that Tocharian A { $\län\ddot{a}^{s\ddot{a}}/_{sa}$ -} was not resuffixed with $n\ddot{a}^{s\ddot{a}}/_{sa}$ needs no special argumentation, I believe, but it must be noted that the link between $n\ddot{a}^{s\ddot{a}}/_{sa}$ and verbs of motion is much weaker in Tocharian A: the $n\ddot{a}^{s\ddot{a}}/_{sa}$ -suffix is much more frequent than in Tocharian B, comprising fewer verbs of motion, and the $s\ddot{a}/_{sa}$ -suffix is even more frequent, and therefore more neutral, than the corresponding suffix in Tocharian B.

Evidently, the Tocharian A subjunctive { $\län\ddot{c}\ddot{a}/_{a}$ -} cannot be derived from $*\län\ddot{a}t-$, contrary to what Hackstein argues (1995: 311; slightly adapted LIV2: 249). More likely is it that $\län\ddot{c}\ddot{a}/_{a}$ - reflects $\län\ddot{c}\ddot{a}/_{ta}$ - with generalisation of the palatalised variant of the cluster as in $pañw-$ etc (alternatively, the spread of c may have been favoured by the preterite $\län\ddot{c}-$). This $\län\ddot{c}\ddot{a}/_{ta}$ - probably reflects an old subjunctive $*l\partial^{c\partial}/_{te}$ - with introduction of the ubiquitous nasal, possibly after $*\acute{s}am^{'}\partial/e-$, the sbj. of ‘come’ (TA { $\acute{s}äm\ddot{a}/_{a}$ -}).

4.3.6 ‘DRINK’

The verb ‘drink’ forms a $x|\emptyset$ -root present-subjunctive in Tocharian B, cf inf. *yoktsi* and prs.ptc.mid. *yokamane* next to athematic forms attested as presents and subjunctives: 1sg. *yoku* (sbj.), 2sg. *yokt* (prs.). The preterite is of a completely isolated type: although there are two other present-preterites in Tocharian B, the vowel alternation $o \sim a$ has no parallels: { $ya^{s\partial}/_{ke}$ -} (Schmidt 1997a: 258-261). The preterite participle apparently follows this preterite stem: *yāku*, *yākoš* (Peyrot 2007b: 799). In Tocharian A, the verb is poorly attested with a $x|\emptyset$ -root present stem in inf. *yoktsi* only (so next to the noun *yoktsi* ‘drink’). It is in suppletive relation to the root *tsāwkā-*, which provides the subjunctive, preterite and imperative stems.

Evidently, the agreement between Tocharian A and B leads to the reconstruction of a present-subjunctive $*yok\partial-$ for Proto-Tocharian, and in view of the isolated character of the Tocharian B preterite we can safely add a preterite $*yak^{'}\partial/e-$. Tocharian ‘drink’ is related to the root found in Lat. *ēbrius* ‘drunk’ and the Hittite verb 3sg. *ekuzi* / $ek^{wt}si$ /, 3pl. *akuanzi* / $\acute{a}k^{wt}ant\acute{s}i$ /.

The problem with $*yok-$ ~ $*yak^{'}\partial/e-$ is that it can hardly be derived from a root present as found in Hittite: 3sg. $*h_1eg^{wh}-ti$, 3pl. $*h_1g^{wh}-enti$ would probably have yielded $*yak^w-$, i.e. TB $**yak-$ and TA $**yuk-$. The present-subjunctive stem $*yok-$ is probably best derived from $*\acute{e}g^{wh}-$ with rounding as in TA *okät*, TB *okt* ‘8’ < $*ek^{wt}\partial$ < $*ektu$ < $*okt\acute{o}$ (pace Kim 2000).

The preterite stem is not explained as easily. With Schmidt (1997a: 261), we could perhaps derive the a from $*\acute{o}$; the ultimate outcome $*yak-$ can easily contain a restored initial $*y-$. $*\acute{e}g^{wh}-$ clearly points to a reduplicated $*h_1e-h_1g^{wh}-$, whereas $*\acute{o}g^{wh}-$ might go back to $*h_1e-h_1og^{wh}-$. As Schmidt pointed out, a 3sg. perfect $*h_1e-h_1og^{wh}-e$

might have resulted in the attested 3sg. present-preterite form *yāś*, and if the paradigm was built on that form, 2sg. *yāś* was the regular replacement of a “real perfect” **h₁e-h₁og^{wh}-th₂e*. We may safely assume that any vowel alternation with the plural was eliminated: not only would it have yielded a completely aberrant paradigm, it would also have been disturbingly close to the attested present-subjunctive.

Indeed, the present-subjunctive may even be the result of paradigmatic split of a paradigm with *yak-* in the singular and *yok-* in the plural. Such a split would explain at least the *x|Ø*-root of the present-subjunctive, as none of the **h₁e-h₁g^{wh}-* forms would have had a palatalised final: 1pl. **h₁e-h₁g^{wh}-me*, 2pl. **h₁e-h₁g^{wh}-su* (the ending apparently needed for Tocharian, see 4.2.2, p 347), 3pl. **h₁e-h₁g^{wh}-r*. I do not know why *yok-* became a present (and subsequently a present-subjunctive because there was no separate subjunctive), whereas *yak-* became a preterite. However, there is evidence from a small number of verbs that the perfect could end up as a present, while it became a preterite in the majority of cases.

4.3.7 ‘GET’ AND ‘DO’

Although some of their stems are obviously secondarily formed according to productive patterns, Tocharian A *yom-*, Tocharian B *yənm-* ‘get’ and Tocharian A *yām-*, Tocharian B *yam-* ‘do’ are irregular to a very high degree. In fact, it is precisely the presence of secondary stems which proves that the verbs originally were even more irregular. The reason to discuss the two verbs together is that there is a possibility that they are related (as argued by Adams 1999: 492, 498), a matter which is taken up at the end of this section.

The verb ‘do’ is irregular in both languages (see also Winter 1977: 144-145), but for different reasons. Tocharian A *yām-* ‘do’ is irregular because it has a suppletive present from a root *ya- ~ ypa-* (not further discussed here) and because it forms two middle preterites, one with *sā* and one without, while the rest of the stem pattern does not fit that for *sā*-less preterites at all. Tocharian B *yam-* ‘do’ is irregular because it forms a preterite {*yamóšša-*}, uniquely derived from the present (not from the subjunctive or the present-subjunctive), while the preterite participle *yāmu* and the ipv. act.sg. *pyām*, mid.sg. *pyāmtsar* do not match that preterite at all. The subjunctives are not especially irregular, but do not agree exactly: Tocharian B has a *a|Ø*-root subjunctive {*yam-*} and Tocharian A a *’ä/a*-subjunctive {*yām’ä/a-*}.

	Tocharian A	Tocharian B
present	<i>ya- ~ ypa-</i>	{ <i>yamóššə/ske-</i> }
subjunctive	{ <i>yām’ä/a-</i> }	{ <i>yam-</i> }
preterite	act. { <i>yām^Ø/sā-</i> }: 1sg. <i>yāmwā</i> mid. { <i>yām^Ø/sā-</i> }: 1sg. <i>yāmtse</i> mid. { <i>yām-</i> }: 1sg. <i>yāmwe</i>	{ <i>yamóšša-</i> }
preterite participle	<i>yāmu</i>	<i>yāmu, yāmoš</i>

	Tocharian A	Tocharian B
imperative	{-yām ^o /sā-}	{-yam ^o /sa-}

Historically, *yam-* must have been a defective verb. First of all, the Tocharian B preterite must be secondary, and it must replace something other than a normal *s*-preterite {yam^o/sa-} because such a preterite would certainly have been preserved. The coexistence of the two middle preterites in Tocharian A suggests that a recessive pattern was replaced by a productive one, and it is obviously the *sā*-less preterite that is old; in Tocharian B, where the *sa*-less type is not attested at all, such a preterite could indeed have been so irregular that it was replaced by the strange *yamāssa-*. Second, it is utterly implausible that the Tocharian B pattern with a well marked present {yam^{ssə}/ske-} would have been replaced by the suppletive pattern we find in Tocharian A. At the same time, the Tocharian B pattern is productive and could be secondary on any account. Thus, we have to reconstruct Proto-Tocharian **yam-* as a defective verb with a subjunctive **yam-* and a preterite **yam-* (without *sa*): the presents are secondary, as are all other preterite forms. The original subjunctive was probably *yam-* without 'ə/-suffix, as Tocharian A *yāmā/a-* could easily be a secondary replacement of an original **yām-*: root subjunctives are a residual category in Tocharian A, as they are often extended with an *ñā/a-* suffix. The preterite participle **yamaw* could in fact be original; it fits to the reconstructed preterite **yam-*. Likewise, it is possible that the imperative **-yam^o/sa-* is old.

The verb 'get' is fully-fledged in both languages, and the two languages agree in all relevant points. The verb is irregular because its stems, in themselves productive, pattern in a very unusual way. Tocharian A shows the extremely rare combination of a *nā*-subjunctive with a derived present, superficially matched by Tocharian B, although the nasal has become part of the root there. The rare combination of the subjunctive and the present is matched by an *s*-preterite in both languages, which is completely without parallels. Not only does this particular combination of the three stems occur only here, the combinations of preterite and present on the one hand, and of preterite and subjunctive on the other, are also unique.⁷⁶⁰

	Tocharian A	Tocharian B
present	{yomnā ^{sā} /sa-}	{yən ^{mā} ^{ssə} /ske-}
subjunctive	{yomnā-}	{yən ^{mā} -}
preterite	{yom ^o /sā-}	{yonm ^o /sa-}
preterite participle	<i>yomu</i>	<i>yainmu, yainmoṣ</i>
imperative	<i>not attested</i>	

⁷⁶⁰ Except, perhaps, the verb 'know', where we also find a *nā*-present and an *s*-preterite. The fact that the only possible parallel is found in another extremely irregular verb is alarming at any rate.

In Tocharian B, the nasal spread throughout the verb, without doubt because the suffix was obscured after the metathesis if *mn* to *nm* in, e.g., *yəmna-* < **yəmna-*. On the other hand, the root vowel *o* must have been generalised in Tocharian A, as evidenced by the lack of weakening of the suffix vowel in *yomnā-* instead of the expected **yomna-* (on Tocharian B *yomnām* B432a2, secondary for regular *yamnmam* /yénman/, see Peyrot 2008a: 152). Thus, TA *yomnā-* and TB *yənmá-* go back to **yəmna-*, whereas the preterites TA *yom^o/sā-* and TB *yom^o/sa-* reflect **yom^o/sa-*. The creation of the extended stems TA {*yomnā^{sā}/sa-*} and TB {*yənmá^{sā}/ske-*} is difficult to date, but they could easily have been formed independently. At any rate, **yəmna-* must ultimately go back to a present, be it in Proto-Tocharian or at a pre-stage of it. For the sake of clarity, I will assume that it was a present in Proto-Tocharian, the *sā/sa-* and *s^{sā}/ske-* formations having been created independently, but this matter is only relevant for the dating of the development, not for the understanding of the development itself. The preterite participle is not easy to reconstruct, since Tocharian B *yainmu* < **yeyənməw* presupposes *ə* grade preterite forms which are not attested: at first glance, it cannot have been formed from the preterite *yom^o/sa-*. On the other hand, it cannot have been built on *yəmna-*, since we would then have expected *yänmau* < **yənma-w*. The evidence of Tocharian A *yomu* is difficult to interpret because it is the expected preterite participle next to a preterite *yom^o/sā-* and thus it could be secondary. In sum, *yəm-* ~ *yom-* seems to have been defective as well: it must have had a present **yəmna-* and an *s*-preterite **yom^o/sa-*, but apparently it had no subjunctive.

There are two reasons to consider the possibility that *yəm-* ~ *yom-* ‘get’ and *yam-* ‘do’ are etymologically related. First, there is an undeniable phonological similarity (see Adams 1999: 492, 498); second, both verbs must have been defective, but the reconstructible stems complement each other almost entirely. However, I am very cautious, calling this etymological relationship only a possibility to consider, because the meanings ‘get’ and ‘do’ are not obviously related and the alternation *a* ~ *o* ~ *ə* is unusual at least.

The complementary distribution of the reconstructible stems is best represented in a scheme:

	‘get’	‘do’
present	<i>*yəmna-</i>	
subjunctive		<i>*yam-</i>
preterite	<i>*yom^o/sa-</i> (act.)	<i>*yam-</i> (mid.)
preterite participle	<i>*yoməw?</i>	<i>*yaməw</i>
imperative		<i>*yam^o/sa-</i>

Whereas the present and the subjunctive can easily be fit in one verb, the preterite is more difficult because it is reconstructible for both ‘get’ and ‘do’. The only way to understand this double stem is to assume that the *get*-variant was at home in the active and the *do*-variant in the middle: after all, ‘get’ is active only, while the only

reliably reconstructible preterite stem for ‘do’ is middle. The preterite participle may have been **yamāw*: as noted above, the preterite participles of ‘get’ do not allow for a straightforward reconstruction and both seem to be secondary in one way or another. In addition, if the alternation *o ~ a* of the preterite suggested by this reconstruction is correct, we would, on the basis of the general pattern of the preterite participle, expect that the vocalism of the participle matches that of the preterite middle, i.e., *a* as in **yamāw*.

Continuing this line of thought, we would expect a similar alternation between *o* and *a* in the subjunctive and the imperative. If such alternations ever existed, they have left no traces as far as I can see; it is possible that the imperative of ‘get’ is just by chance not attested, but it could have been made secondarily at any point. The reason why these alternations have left no traces is without doubt that the alternation between *o* and *a* was too irregular, so that it was eliminated. If ‘get’ and ‘do’ really go back to one verb, this is the reason why they split in the first place, but it must also be the explanation why no subjunctive forms with *o*-grade are attested. Probably *a*-grade was found throughout the subjunctive except in the singular active, so that elimination of the *o*-grade forms was trivial. This in turn detached the preterite with *o*-grade from its subjunctive with *a*-grade and that must have been the beginning of the creation of two independent verbs, at first defective, and eventually supplied with new formations for the lacking stems.

The key question is how the meanings can be reconciled. It is my firm belief that the semantic connection is in principle possible, but the problem is that I cannot prove it; nothing forces us to connect the two verbs on the basis of their meanings. *yam-* is in both languages used as a semantically rather pale verb ‘do’, often even as a kind of auxiliary in circumscribed denominal constructions as TB *deṣit yam-* ‘confess’, literally ‘make a confession’, but it can also mean ‘make, construct’. Evidently, the latter, fuller meaning is original. The semantics of ‘get’ is more varied: the basic meaning seems to be ‘get, obtain’, as it often translates Skt. *adhigam-* “gelangen zu, erreichen, erlangen, finden” (SWTF, I: 34, col. 2) and *prāp-* (a.o.) “erlangen, erreichen, gewinnen” (SWTF, III: 231, col. 1). In his dictionary, Adams gives ‘achieve’ as the first translation (1999: 497), which yields good translations indeed: the verb is always constructed with an object that is desirable, and often the obtainment or fulfilment of such an object requires some action or investment on the part of the subject, though it may also be just granted (often by the Buddha).

Adams must be right that the semantic link between the verbs is between ‘achieve’ and ‘make’, which are close indeed. However, my analysis of the stem patterns is incompatible with his view that *yam-* is an “*ō*-grade iterative-intensive” to *yām-* (1999: 492): I fail to see why ‘make’ should be the iterative-intensive counterpart of ‘achieve’, and the fact that the verbs can be reconstructed as *one* verb is a much stronger argument for their being related than the meanings or the shape of the roots. As already pointed out above, it is plausible that *yam-*’s widespread meaning ‘do’ developed from ‘make’, and as I will insist on ‘obtain, get’ next to ‘achieve’ for *yām-*, I suppose that ‘get’ is the original meaning, secondarily extended

to 'achieve'. The development of 'achieve' to 'make' may have been favoured by the probable origin in the middle of the latter, but in my view the semantic connection can also be upheld without recourse to a difference in voice.

Unlike Adams (1999: 498), I consider Jasanoff's derivation of **yām-* 'get' from **h₁em-* 'take' (1978: 32; see LIV2: 236) very likely, and in any case semantically more attractive than a connection with Skt. *yam-* 'hold' (LIV2: 312). Moreover, **h₁em-* is very well attested in other languages (e.g. Lat. *emō* 'take', Lith. *imù* 'id', OCS *imq* 'id', Goth. *niman* 'id', with *n-* through reanalysis of **gan-iman* as *ga-niman*), whereas *yam-* is found only in Indo-Iranian.

However, the Tocharian stem pattern must be secondary, and the explanation of the vocalic alternations is not made easier by this etymological comparison. Whereas **yāmna-* represents a regular Tocharian *ə*-grade, that is, with restoration of the initial **y-* from forms with initial **e-* or **ē-*, the alternations of the stems *yom-* and *yam-* are unexpected. One of them must represent a reflex of **ēm-*, the regular vowel grade in the singular active of the *ə*/Ø-root subjunctive and the active of the corresponding preterite. Thus, it is likely that **ēm-* is reflected in **yom-*, whereas **yam-* is a replacement of the expected *ə*-grade form **yām-*. In any case, the morphological relation between **yom-* and **yam-* seems to be parallel to that of *e*-grade vs *ə*-grade. The problem of *o*-grade in general is taken up separately elsewhere (4.5.10, p 429), but it must have a special connection with the initial **y-*.

4.3.8 CONCLUSION

The scrutiny of some of the most irregular verbs has revealed a number of interesting points, even though many problems remain. The discussion of the verb 'come' (4.3.1, p 351) has shown that the Tocharian present may go back to a Proto-Indo-European present, and that a Tocharian subjunctive may go back to a Proto-Indo-European aorist (or root) subjunctive. At the same time, its highly irregular preterite must reflect an archaic type, as well as heavy restructuring; possibly, it reflects a pre-stage of the *s*-aorist. The derivation of the verb 'put' (4.3.2, p 357) has shown that the *s*-present and *s*-preterite system needs a Ø-grade stem form somewhere, and really presentic value of the *s*-present, as it has pushed the old Proto-Indo-European present into subjunctive function. The verb 'know' (4.3.3, p 365) reflects an archaic type of a nasal present combining with an *s*-aorist, as further only found in *yām-* 'get' (4.3.7, p 372). If related to *yam-* 'do', the latter may offer additional evidence that there was a gradation type with *o* as full grade (normally Tocharian *e*-grade) next to *a* as weak grade (normally Tocharian *ə*-grade). The same alternation seems to require a different interpretation in the word for 'drink' (4.3.6, p 371), which is very difficult to interpret, but it might show that the Proto-Indo-European perfect could become a present as well as a preterite. At the same time, it suggests that a present became a present-subjunctive if it had no subjunctive beside it. The same functional development is much more evident in *y-* 'go' (4.3.4, p 366), which allows for virtually no other interpretation: its present-subjunctive must

reflect the old Proto-Indo-European root present. The verb ‘go out’ (4.3.5, p 368) has been subject to very heavy restructuring, as its present and subjunctive are for a large part modelled on those of *k^wəm-* ‘come’. Conversely, the isolated present-preterite type of *lät-* ‘go out’ must be original, and its influence on the preterite of ‘come’ is ascertained; probably the preterite of *yok-* ‘drink’ was formed after ‘come’ and ‘go out’, too.

In sum, the discussion of the irregular verbs nicely illustrates that despite the many archaisms preserved, the impact of analogical developments is enormous.

4.4 PRESENT-SUBJUNCTIVE

The existence of the present-subjunctive has received the special attention of Winter, who claimed that if the subjunctive is primary, a secondary present is formed, but if the present is primary, no secondary subjunctive is formed. In other words, present-subjunctives are primary presents, syntactically used as present and subjunctive, but morphologically without subjunctive:

“Liegt keine Suppletion vor, so läßt sich ein primärer (unerweiterter oder erweiterter) Stamm des ‘Konjunktivs’ durch Suffigierung zu einem sekundären Präsensstamm ausbauen; ein Ausbau in umgekehrter Richtung erfolgt nicht: einem primären Präsens ist grundsätzlich ein formgleicher ‘Konjunktiv’ zugeordnet” (1994a: 287).

According to Winter (l.c.), the difference between primary subjunctives and primary presents is one of aspect: verbs with a perfective (“momentan”) Aktionsart have primary subjunctives, whereas verbs with an imperfective (“durativ”) Aktionsart have primary presents.

In essence, this analysis is correct. However, as I have argued in chapter 3, the subjunctive is syntactically not perfective, nor is the present syntactically imperfective. Moreover, the distribution is not that clear, as there are many verbs with perfective Aktionsart among the present-subjunctives, as well as many others with imperfective Aktionsart among verbs with a difference between present and subjunctive. Although Winter admits “von diesem Prinzip ist es dem Anschein nach im Laufe der Sprachgeschichte zu Abweichungen gekommen” (1994a: 287), this is certainly not a sufficient explanation for a large category such as the *sk*-causatives in Tocharian B.

Thus, I take the value of Winter’s analysis to be found essentially on the diachronic level. Of course, the question is what its diachronic value is. If Couvreur claims that the subjunctive is a present of the perfective stem (1947: 73), does this mean the subjunctive was originally a present and a new present was created next to it? Were those new presents only formed to verbs with a perfective Aktionsart? If so, is it correct to equate the primary subjunctives with the present-subjunctives since both are old presents?

In my view, the present-subjunctive is one of the most relevant categories for a better understanding of the Tocharian verb. What I will try to show below is that

both Winter's and Couvreur's analyses are correct. However, "primary subjunctive" and "primary present" are not to be understood in Tocharian terms, but in Proto-Indo-European terms: in principle, the perfective stem continues the Proto-Indo-European perfective stem usually called "aorist", whereas the imperfective stem continues the Proto-Indo-European imperfective stem called "present". In other words, primary presents, or "underived" or "root presents" (including $*e/o$ -presents without accompanying aorist) are reflected in the Tocharian present-subjunctive. Its imperfective Aktionsart is a direct continuation of the imperfective Aktionsart of the Proto-Indo-European primary present.

An important consequence of this analysis is that the Tocharian present continues the Proto-Indo-European present whereas the subjunctive continues the aorist.

Below, comparative evidence of the present-subjunctives is reviewed. To this end, they are ranged under the following categories: $\text{'}\partial/e$ -suffix (4.4.1, p 378), $x|\emptyset$ -root present-subjunctives (4.4.2, p 389), $x|a$ -root present-subjunctives (4.4.3, p 393), $*\acute{n}\acute{n}^{\partial}/e$ -denominatives (4.4.4, p 394), the *lyāka*-type (4.4.5, p 395) and *sk*-causatives (4.4.6, p 398). The following present-subjunctives are discussed elsewhere: *kḷews*- 'hear' (4.7.2, p 457), *yam*- 'do' (4.3.7, p 372), *yā*- 'go' (4.3.4, p 366), and *yok*- 'drink' (4.3.6, p 371).

4.4.1 $\text{'}\partial/e$ -SUFFIX

Although the $\text{'}\partial/e$ -suffix forms not only presents, but also subjunctives and preterites, it is most of all a present marker: it is especially frequent with present-subjunctives. PT $*kḷews$ - 'hear', which also forms an $\text{'}\partial/e$ -present-subjunctive, is discussed in 4.7.2 (p 457); see further also the $*\acute{n}\acute{n}^{\partial}/e$ -denominatives (4.4.4, p 394) and the *sk*-causatives (4.4.6, p 398), which likewise contain an $\text{'}\partial/e$ -suffix.

TB *ana^{ss}∂/ske*- 'breathe'

Although present-subjunctive function of Tocharian B {*anā-ss[∂]/ske*-} 'breathe' (without Tocharian A cognate) cannot be proved definitely, it is highly probable. First of all, subjunctive function is proved by inf. *anāst(s)i* THT1324b.b3 (if read correctly by Thomas 1972: 443; the reading is not completely certain) and the vn *anāssālñe* B41a1, B41a6 etc. Further, both occurrences of the 3sg. *anāssām* in B41b2 are most probably presents. At any rate, the *sk*-suffix is a strong indication that the formation was in origin a present, which further suggests that it is a present-subjunctive. Following Schmidt (1982: 367), *ana^{ss}∂/ske*- is to be derived from a preform $*h_2enh_1-sk^e/o$ -, an *sk*-extension of the root present $*h_2enh_1$ - attested in e.g. Ved. *ániti* (LIV2: 267). Although a root *ana*- is possible in principle (cf also TB *onolme* 'being' < $*ana-elme$, see Peyrot forth.a), the *sk*-suffix may have been added to make the present formation clearer: otherwise, the Tocharian B present-subjunctive continues the original Proto-Indo-European root present.

TB *ay^{śā}/ke-* ‘know’

Tocharian B *ay^{śā}/ke-* ‘know’ has no Tocharian A cognate. Its infinitive *aīsti* and prs.ptc. *aikemane* together unambiguously point to an ^ʔ/_e-present-subjunctive; the same formation can reasonably be assumed for Proto-Tocharian. The verb has been connected to the Gm. prt.-prs. **aih* in e.g. Got. 3sg. *aih*, 3pl. *aigun* ‘possess’ and IIr. **Hi-Hiċ-* in Ved. *īśe* ‘I am in command, I rule’ and OAv. *išē* ‘id’ (Kümmel 2000: 124; LIV2: 223; Adams 1999: 101-102), which point to a root PIE **h₂eiċ-*. Although the middle inflexion of the IIr. verb is still in need of an explanation (see Kümmel l.c.), it probably replaces an older perfect, as also reflected in the Gm. preterite-present. The meaning of the Tocharian verb obviously derives from ‘possess’ through ‘possess knowledge’.

If we assume that perfect reduplication was inherited in Tocharian, as it is in the preterite participle, we could derive *ayk-* from the pl. stem **h₂e-h₂iċ-* directly, and probably from the sg. stem as well (perhaps through an intermediate **oyk-* or **āyk-* from **h₂e-h₂oiċ-*). If perfect reduplication was only inherited in the preterite participle and not in finite forms, *ayk-* can only be derived from a generalised singular stem **h₂oiċ-* (see Peyrot 2008a: 58, pace Adams 1999: 102). The Proto-Indo-European verb must have been a perfect with present reference of Chantraine’s type 12 (“Verbes signifiant «avoir, posséder, abandonner, faire»”, 1927: 11) and the fact that it became a present in Tocharian is semantically only natural. Formally, the 3rd singular may have been a key-form: the original **h₂e-h₂oiċ-e* should have become **ayśā*, which was identical with the preform of the 3sg. present *aīstrā* < **ayśā-tr*. This explains at once why the perfect should have ended up as an ^ʔ/_e-present. If it became a present early enough, it can have come to behave like a root present; in any case, there was never an aorist stem next to it, and so the verb became a present-subjunctive.

PT **katk’^ʔ/e-* ‘be glad’

On the basis of its morphological structure, it is likely that Proto-Tocharian **katk’^ʔ/e-* was a present-subjunctive, but it is difficult to give definitive synchronic proof. In Tocharian A, a present stem {*kāckä/ṭka-*} is suggested by 2pl. *kāckāc* and prs.ptc. *kātkmām*, but subjunctive function can only be inferred from the morphology: *kāckāc* A31a3 is likely to be a present (‘don’t be glad about rebirth’), and 3sg. *kāckä(ś)* A192+145a4 is almost certainly a present in view of the neighbouring presents. In Tocharian B the situation is similar: the prs.ptc. *katkemane* proves that {*ka^{ccā}/ṭke-*} was at least a present, but subjunctive function is not easily proved syntactically, and the relevant forms for a morphological argument (such as the vn or the inf.) are lacking. However, the prt. {*kacc-á-*} and the prt.ptc. *kakāccu* presuppose a subjunctive {*ka^{ccā}/ṭke-*}, which in turn implies that that stem was a present-subjunctive. A further argument can be that at least in Tocharian B, there is no attested pattern for a subjunctive next to the present {*ka^{ccā}/ṭke-*}.

The reconstructed Proto-Tocharian present-subjunctive **katkʰ/ə-* was certainly a present in origin, as it must derive from earlier **katskʰ/ə-*, as if from PIE **gh₂dʰ-skʰ/o-*, an *sk*-present from the root preserved in Gk. γηθέω ‘rejoice’ (LIV2: 184).

TB *kamñʰ/ə-* ‘play’

Although Tocharian B *kamñʰ/ə-* ‘play’ is not well attested, it is probably a present-subjunctive; in Tocharian A, the verb is not attested at all. An *ʰ/ə*-formation is proved by 3sg. *kañmām* B613b2 (possibly a prs.) and 3pl. *kāñmem* B2b2 (certainly a present because it is parallel to the prs. *spāntemñtrā*). The inf. *kañmatsi*⁷⁶¹ B370b6 can only be from the same stem if it represents /kañmátʰi/, which would then at the same time prove that the present and subjunctive stems are identical. However, prs.ptc. *kañmāmāne* B118a7 (arch.) must then be assumed to be a mistake for *kañmemāne* /kañmémane/; ger. *k(a)ñmalonasa* B370b2 ‘toys’ can be regular /kañmálonasa/.

The peculiar root shape of *kañm-* suggests that it goes back to **kamíʰ/ə-* through a metathesis comparable to that in TB *kānmaṣṣām* ‘(s)he comes’ from **kʷamñāṣṣa-* (van Windekens 1976: 194; Adams 1999: 150). **-ñʰ/ə-* could ultimately be identical with the denominative suffix *-ññʰ/ə-* (see 4.4.4, p 394), but further connections are unclear.

TB *kərʰʰ/əskə-* ‘shoot; throw’

Following Adams (1999: 167; see also Hilmarsson 1996: 93), we can set up a Tocharian B verb *kərsk-* meaning ‘throw (of flowers)’ and ‘shoot (of an arrow)’. Although no subjunctive forms are attested, the stem pattern proves that it must have formed a present-subjunctive {*kərʰʰ/əskə-*}. That this was the present stem is shown by the prs.ptc. *kārskemane*, whereas its subjunctive function needs to be inferred from the secondary *a*-preterite attested in 3sg.prt. *karṣṣa*, prt.ptc. *kekarṣṣu*.

The same root may be reflected in Tocharian A *pār-ra-krase* ‘distance of an arrow-shot’ (Hilmarsson 1996: 177; Adams 1999: 168). Whereas Adams argues that TA *-krase* presupposes a root **krəs-* that was apparently enlarged with *sk* in Tocharian B, Hilmarsson derives it from a Tocharian A root *kräs-**, which could in fact be the direct etymological match of Tocharian B *kərsk-*. The key question is whether the formation of *-krase* is so productive that it can have been formed after a development of **kərsk-* to *kārś-*. Since I know of no parallels for the scenario proposed by Hilmarsson, I would rather follow Adams in positing an original root **krəs-* that was enlarged in Tocharian B.

⁷⁶¹ Sieg and Siegling transliterated *k(a)ñmatsi* (1953: 244), but *kāñmatsi* is definitely impossible, whereas other vowels (*e, i, u*) can probably be excluded, too (*ā* is excluded, too, in particular because we would expect it to be written <ḳa>).

If the Proto-Tocharian root was **krās-*, the connection with Ved. *kirāti* ‘scatters, pours out’ etc, from PIE **kerH-* or the like (so LIV2: 353; see also Adams l.c.), is difficult to maintain. At all events, this etymology had to cope with the difficulty that the *seṭ* laryngeal apparently failed to vocalise: we would rather have expected something like Tocharian ***krask-*.

In spite of the difficulties involving Tocharian A *pär-ra-krase* and the Indo-European etymology of the verb, the present-subjunctive *kər^{ssə}/ske-* evidently goes back to a present formation as the *sk-* suffix is a present suffix.

PT **t'əmp^a/e-* ‘can’

It is likely that Proto-Tocharian **t'əmp^a/e-* ‘can’ formed a present-subjunctive, but the evidence needs some discussion. In Tocharian B, the identity of the present and the subjunctive stem is best shown with the derived imperfect and optative because these occur in usually clearly different contexts, for instance: 1sg.opt. *cämpim* AS5Cb4, parallel to 1sg.opt. *stamo(ym)*, and 3sg.ipf. *campi* B44a2, where the past context is indicated by *nauṣ* ‘before’, *wayā-ne* ‘he brought him’ and *maitar* ‘they set out’. The underived stem was {*cəmp^a/e-*}, as is shown by 1sg. *campau* and 3pl. *campem*, but it is hard to prove that this stem could be used both as a present and a subjunctive. Whereas present usage is ascertained from instances as 3pl. *cāmpen-ne* AS7Ca3 (parallel to 3pl.prs. *yamaskenträ*, *tärkänäṃ*, and *cmenträ*), assessing subjunctive usage is more delicate because the verb is modal itself. In addition, decisive infinite forms such as the infinitive or the verbal noun lack altogether, the former apparently for reasons of construction. Nevertheless, an additional indication of the present-subjunctive stem is the fact that a distinct subjunctive stem is not attested despite the relatively frequent occurrence of the verb.

The preterite {*cəmpyá-*} is peculiar in that it seems to contain an element *-y-* that is otherwise only found in preterites derived from **əy-*subjunctives. However, unlike those secondary preterites from **əy-*subjunctives, the *y* of *cəmpyá-* is never spelled double, and perhaps it is somehow the reflex of the palatalisation that we historically expect. Although *py* cannot continue older **p* phonologically, a secondary *py* may have been introduced after the pattern 1sg.prs.-sbj. *klyausau** ‘I (will) hear’ : 1sg.prt. *klyauṣawa* ‘I heard’. If this argument is accepted, the preterite provides further support for the analysis of {*cəmp^a/e-*} as a present-subjunctive because it would be derived from a subjunctive {*cəmp^a/e-*}: {*cəmp-’á-*}.

In Tocharian A, the difficulties with the present and subjunctive forms are comparable to those for Tocharian B. However, the subjunctive stem is ascertained with the verbal noun *cāmplune*, whereas the plausible restoration (*cä*)mp[a]māṃ A227/8b1 suggests that the present stem was identical to that subjunctive stem. The shape of the stem, {*cämp^a/a-*}, can be deduced from 3pl.prs.-sbj. *cāmpē* and 1sg. *cāmpam*. An *s*-preterite and a *ṣā*-imperfect are found beside it: 3sg.prt. *campäs*, 3pl.prt. *campär*, etc, and 3sg.ipf. *cāmṣā*. The imperfect must have been formed from the preterite after the pattern 3sg.prt. *kos** : 3sg.ipf. *koṣā* or 3sg.prt. *nāksāt* : 3sg.ipf.

nākšāt:⁷⁶² *cāmp*- had no *ṣā̃/**sa*-present, the formation this imperfect type historically derives from.

The Tocharian A *s*-preterite is difficult to explain because *cāmp*- deviates from the usual *s*-preterite pattern in that it forms no *ṣā̃/**sa*-present. The combination of a *ṣā̃/**a*-subjunctive with an *s*-preterite is rare, but it has parallels in at least *kāw*- 'kill', *trāyk*- 'confuse' and *yām*- 'do' (see further 2.6.6, p 99). Thus, it is in principle possible that the *s*-preterite {*camp*-(*sā*)-} was formed after the present-subjunctive {*cāmp*^{*ā*}/*a*-.}⁷⁶³ On the other hand, the Tocharian B preterite follows a much more productive pattern so that it could easily be secondary. The question is, then, which of the two was most likely to have been replaced in the other language.

In view of the good attestation of the pattern "*s*-preterite plus *ṣā̃/**e*-subjunctive" in Tocharian B, I would expect that it would have been preserved and enlarged with a *ṣā̃/**se*-present. However, if an *a*-preterite **cāmpa*- had been preserved in Tocharian A, it is likewise troublesome why it should have been replaced: the pattern is found with e.g. prs.-sbj. {*pāṣā̃/**sa*-.} and prt.(ipf.) {*pāṣā*-.} (see 2.6.3, p 96). One might think that a replacement was favoured by the loss of the palatalisation of the **p*, as all the other verbs except *śāwā*-, prt.(ipf.) of 'live' have palatalisable root-finals.

In sum, the reconstruction of the Proto-Tocharian preterite is difficult. One possible conclusion is that there was no preterite (nor an imperfect) at all and that it was created independently. If there was in fact a preterite, I am inclined to think that it was of the type reflected in Tocharian B: although I cannot find definite arguments for its replacement in Tocharian A, this is the pattern we would actually expect. In any case, the reconstruction of *ṣā̃/**e*-present-subjunctive is ascertained, as the two languages agree perfectly and the formation can hardly be secondary.

The Proto-Tocharian *ṣā̃/**e*-present-subjunctive **t'əmpṣā̃/**e*- is probably related to Lith. *tempiù*, *tempti* 'stretch', with a derived noun *įtampa* 'effort' (Pedersen 1941: 162; LIV2: 626). The stem reconstructions of LIV2, a PIE present **temp-e/o*- and an *s*-aorist **tēmps*-, are fully based on Tocharian; as the Lithuanian formation is productive, the formation of the Tocharian verb cannot be explained with recourse to comparison. (A connection between the **iē/o*-present of Lithuanian and the *y*-element in the Tocharian B preterite must be discarded because such a suffix should have left a trace in the Tocharian present, too.)

⁷⁶² Although these verbs do not show the relevant gradation pattern, it must have been present in e.g. 3sg.prt. *markās* : 3sg.ipf. *mārṣā** 'smudged', where the imperfect is unfortunately not attested.

⁷⁶³ Winter hesitantly suggests that the *s*-preterite was formed to the *ṣā̃/**a*-subjunctive after the latter had been reanalysed as a root subjunctive (because the *a* of the suffix had become reanalysed as a part of the endings; 1977: 144). This account has to cope with a chronological difficulty, since the root subjunctive + *s*-preterite was recessive in historical times, so that it is doubtful whether such a reanalysis could have occurred early enough.

TB $\tilde{n}\partial^{ss\partial}/_{ske}$ - ‘desire’

Of the Tocharian B verb $\tilde{n}\partial sk$ - ‘desire’ only a stem $\{\tilde{n}\partial^{ss\partial}/_{ske}\}$ and a derived preterite $\{\tilde{n}\partial s\partial\text{-}\acute{a}\text{-}\}$ are attested, which in itself points to present-subjunctive function for $\{\tilde{n}\partial^{ss\partial}/_{ske}\}$. However, whereas present forms are attested in abundance, and its present function is further corroborated by the prs.ptc. $\tilde{n}\partial skemane$, unambiguous subjunctive forms are difficult to find. In my view, the best candidate is $\tilde{n}\partial skau-ne$ NS32b2, which is preceded and followed by clear subjunctives ($lakau$, $k\bar{a}rsau-ne$, see Couvreur 1955: 112), but even here it is not excluded that the present is used to express that the event is about to take place. A further difficulty is the frequency of $\{\tilde{n}\partial s\partial\text{-}\acute{y}\text{-}\}$ in imperfect rather than optative function: usually the optative is more frequent, but for $\tilde{n}\partial s\partial\text{-}\acute{y}\text{-}\}$ I have found not one good example. On top of this, the derived preterite seems to have the slightly different meaning ‘summon’, cf for instance B16b5 $\tilde{n}\partial s\partial po ti(rthem walo)$ ‘the king summoned all $tirthyas$ ’, which has a parallel in the Pāli Dhammapada commentary “Thereupon the king caused the heretics to be summoned before him” (Burlingame 1921: III, 191).

In sum, there are problems with the present-subjunctive status of $\{\tilde{n}\partial^{ss\partial}/_{ske}\}$, but we would expect it in principle. If it was one, the explanation is clearly that it was originally a present, as it must contain a present suffix $*-sk^e/_o-$. Malzahn (2007) connects the verb to Gk. $\nu\acute{\epsilon}\omicron\mu\alpha\iota$ ‘get home safely’ etc from PIE $*nes-$ (LIV2: 454-455; Adams 1999: 267-268). As she points out, this connection requires the assumption of a “Narten” weak grade $*nes-$ because zero grade is regular in sk -presents: the usual formation would have been $*ns-sk^e/_o-$, which would not yield the attested form. However, apart from the implausible pre-form $*nes-sk^e/_o-$, the real problem resides in the semantics, which is simply too far off to be compelling.

TB $nask'\partial/_e$ - ‘bathe’

$nask$ - ‘bathe’ is attested in Tocharian B only, forming an $\partial/_e$ -present-subjunctive, witness prs.ptc.mid. $naskema(ne)$ and inf. $n\acute{a}\partial s\partial si$. The analysis as a present-subjunctive is further supported by the coexistence of 3sg.opt. $n\acute{a}\partial s\partial si$ AS3Bb6 and 3pl. $n\acute{a}\partial skem$ IT52a3, which is probably a present since it translates Skt. $sn\acute{a}nti$ ‘they bathe’ Uv17.8c. Tocharian B $na^{ss\partial}/_{ske}$ must be connected to Ved. $sn\acute{a}ti$ ‘bathes’, Lat. $n\acute{a}re$, Ml̥r. $sna\acute{i}d$, etc, which go back to a PIE root $*sneh_2-$ (LIV2: 572; the connection of an alleged Hittite cognate is rejected by Kloekhorst 2008b: 721). Since PIE $*sN-$ is normally preserved in Tocharian (cf especially $sm\partial y-$ ‘laugh’ in 4.4.2, p 389), we have to assume an ad hoc dissimilation $s\_s \rightarrow \emptyset\_s$ for Tocharian (unless one would want to posit a PIE s -mobile on the basis of Tocharian only). Although PIE $*sneh_2-$ formed certainly a root present (most probably without derived aorist beside it), as shown most clearly by Vedic, it was in Tocharian enlarged with the ubiquitous present formant $*-sk^e/_o-$. The newly formed sk -present had no subjunctive beside it and became a present-subjunctive.

PT **pask'*_{ə/e}- 'protect'

Proto-Tocharian **pask'*_{ə/e}- 'protect' can confidently be reconstructed as a present-subjunctive for Proto-Tocharian because it is attested as such in both languages. This can be seen from the vn *pāslune*, the inf. *pāssi* and the prs.ptc. *pāsmām* in Tocharian A, and the ag.n. *paṣṣeñca* and inf. *pāṣṣi* in Tocharian B. The difference in root shape between TA *pās*- and TB *pask*- is explained by the regular merger of *s*- and *sk*- presents in the former. Proto-Tocharian **pask'*_{ə/e}- has clear relatives in e.g. Lat. *pāscō*, Hitt. *pahs-i* and Ved. *pāti* (LIV2: 460). The Tocharian root clearly goes back to the *sk*-present **ph₂-sk'*_{ə/o}- also found in Latin (where the *ā* is secondary after the perfect *pāvī*, see LIV2 l.c.). Evidently, Tocharian **pask'*_{ə/e}- was a present only – apparently the corresponding aorist was lost – which became used as a present-subjunctive.

PT **pār'*_{ə/e}- 'bring'

In both languages, the present of 'bring' is part of a suppletive system, see 2.5.5 (p 78). It is unlikely that a straightforward suppletive pattern like in Tocharian A, with a present *pār'ä/a*- next to a prt.-sbj. stem *kāmā*-, would have been replaced by the confusing multiple suppletion of Tocharian B (where the subjunctive is taken from the middle of *ay*- 'give' and perhaps the imperative from *asa*-). Therefore, I suppose that the combination of a prs. **pār'*_{ə/e}- (on the precise shape see below) with a prt. **kama*- is old, but that a subjunctive was lacking. In Tocharian A, the preterite root came to be used as a subjunctive, too, but in Tocharian B the verb remained defective until incomplete suppletion from otherwise independent verbs came about.

Although it is certain that **pār'*_{ə/e}- was originally a present, it is difficult to prove that it was also used as a subjunctive in Proto-Tocharian. In any case, the etymology is clear: **pār'*_{ə/e}- goes back to the Proto-Indo-European primary present **b^hérē*_{ə/o}-, otherwise attested in e.g. Gk. φέρω (next to aor. ἤνεγκον) or Lat. *ferō* (next to pf. *tulī*; the Ved. *s*-aor. *abhār* is secondary).

On the basis of the PIE **e*-vocalism in the root, one would expect that Proto-Tocharian had a palatalised initial, i.e. **pār'*_{ə/e}-. However, on the basis of e.g. TB *piś* 'ś' < **pāśśā* and TB *mit* 'honey' < **mātā* (borrowed into MChin. as 蜜 *mjit* > MoChin. *mi*) we would expect that this **pā*- had yielded ***pi*- in Tocharian B, whereas it seems that the immediate preform was rather **pār'*_{ə/e}- (Ringe 1996: 141). Perhaps the loss of palatalisation is to be attributed to suffix accent or syncope of the shwa in the root, i.e. **pār'án-ne* > **pārán-ne* or **prán-ne*; removal of the palatalisation by analogy always remains a possibility, but Ringe (l.c.) does not offer a model. In any case, I consider it highly unlikely that the absence of *i*-colouring is to be explained from levelling of root variants with different vowel grades (pace Kim forth.a) – Proto-Indo-European thematic presents were simply not grading.

PT **yars*^ʔ/_e- ‘honour; speak with reverence’

A Proto-Tocharian present-subjunctive **yars*^ʔ/_e- ‘honour; speak with reverence’ can safely be reconstructed. In Tocharian B, it is the combination of prs.ptc. *yärsemane* AS12Da2 and the vn *yäršalñe* (e.g. THT1574a1, THT4063a5) that proves a prs.-sbj. {*yär*^{sə}/_{se}-}. In Tocharian A, a subjunctive stem {*yär*^{sä}/_{sa}-} is shown by vn *yäršlune*, whereas prs.ptc. *yärs[m](ā)ñi* A167a2 would prove that the same stem is also a present (Malzahn forth.b). Even if the evidence of the latter form is considered uncertain, present usage is proved by 3pl.mid. *yärsanträ* A276b6, which is certainly a present in view of the preceding present, e.g. *yp(e)ñc* and *pikiñc* – in spite of the OUY. conditional *tapınsar* MayT16.14a4 (Müller and Sieg 1916: 403; Tekin 1980: 142).

A connection of *yars*- with TA *yärk*, TB *yarke* ‘reverence’ is semantically attractive, and the -s- must then be a suffix. The original verb is probably preserved in Tocharian *yärk*- ‘revere’, which forms at least a *sä*/_{sa}-present (see the inf. *yärkässi*), and possibly an s-preterite as well, if 3sg.mid. *yä(rk)s(ā)t* A62a3 is restored correctly. If *yars*- is indeed to be connected to *yärk*-, the *k* must have been lost between *r* and *s* or *š* (**s*^ʔ). As a parallel I can adduce TB *prekšäm*, TA *prakāš* ‘asks’, which must be secondary in view of the root vocalism, so that it is tempting to reconstruct an immediate preform **pars*^ʔ/_e- from **parks*^ʔ/_e-.⁷⁶⁴ I assume that *yars*- results from paradigmatic split when the forms where the *k* was lost had become unrecognisable: apparently, the split-off verb was built on present forms, so that the result was a present only, which then came to be used as a present-subjunctive.

In sum, the present-subjunctive **yars*^{sə}/_{se}- is likely to be a Tocharian innovation. Ultimately, *yars*- and *yärk*- go back to Proto-Indo-European **h₁erk*^w- ‘sing, praise’, attested in Hitt. *ārku*^{-zi} ‘chant’ and Ved. *arc*- ‘sing, praise’ (Kloekhorst 2008b: 205; LIV2: 240).⁷⁶⁵

TB *lāśə*/_{ke}- ‘lie’

The Tocharian B stem {*lāśə*/_{ke}-} ‘lie’ is a present-subjunctive, as can be seen from the combination of the prs.ptc. *lykemāne* B118a2 and the vn *lyšalyñe* B108b5 (cf also the priv. *elykatte* THT1271a2, adduced by Malzahn forth.b). In addition, 3sg. *lyšām* B606.2 is certainly a present in view of the parallel *wāskantär* ‘moves’ and *lkāššām* ‘looks’, whereas (*lya*)*šä(ñ)* IT368b5 is certainly a subjunctive because it translates Skt. *adhiśeṣyate* Uv1.35b ‘will lie upon’ (Peyrot 2008b: 85). The Tocharian B present-subjunctive *lāśə*/_{ke}- is directly related to Goth. *ligan* ‘lie’, Fal. *lece* ‘lies’, the Hesychius

⁷⁶⁴ Although it is probable that the root-final **-k* was lost in the Proto-Indo-European present **prsk*^e/_o- from **prk-sk*^e/_o-, it must have been restored in Tocharian at an intermediate stage; otherwise the rise of the s-present cannot be explained (see 4.5.6, p 419).

⁷⁶⁵ Evidently, I disagree with Adams’ (1995: 500; see also van Windekens 1941: 168) connection with Gk. *ἔρω* ‘love’ and *ἐπάω* ‘love’, which was phonologically difficult anyhow: a PIE **h₁erh₂*- (so LIV2: 240) would certainly have yielded ***yəra*- or the like.

entry λέγεται ‘lies’, and OIr. *laigid* ‘lies’⁷⁶⁶ (LIV2: 398). On the basis of these formations, a Proto-Indo-European present **leg^{he}/o-* can be reconstructed, which was probably not accompanied by an aorist: if, with Harðarsson (1993: 204–205), Gk. λέκτο ‘lied down’ goes back to an *s*-aorist formation, it must be secondary, and OCS *ležati* and *lēgati* are derived from *lēgō* ‘I lie down’, inf. *lešti*, where the nasal is probably secondary since it follows a pattern similar to that of *sędō* ‘I sit down’ and *bōdō* ‘I will be’ (Stang 1957: 162; Kortlandt 2009: 187).

PT **wəynask^ʔ/e-* ‘honour’

A Proto-Tocharian present-subjunctive **wəynask^ʔ/e-* ‘honour’ can safely be reconstructed. In Tocharian A, we find a prs.ptc. *wināsmām* next to a vn *wināšlune*, and in Tocharian B the inf. *wināstsi** (attested are late *wīnāssī* and arch. *winastsi*) is matched by for instance 3sg. *winaššāñ-cä* IT8ob2 (a present parallel to *prekšāñ-cä*). With the regular reduction of **-sk^ʔ/e-* to *-sä/śa-* in Tocharian A, we can reconstruct **wəynask^ʔ/e-* for Proto-Tocharian.

Although a connection with Ved. *vāñchati* ‘desire’ from PIE **unH-sk^e/o-* (with the *n* analogically reintroduced; the same *sk* is seen in Gm. **wunska-* ‘wish’, OHG *wunsc*, see LIV2: 682–683) is attractive, it encounters serious difficulties on the phonological level. In principle, we would expect a preform **unH-sk^e/o-* to have resulted in **wənsk^ʔ/e-*, without *əy* or *i* in the first syllable. It is conceivable that the verb *wəynask-* and the noun *wina* ‘pleasure’ (as it is attested in Tocharian B) exerted mutual influence, but the vocalism in the noun is not easy to explain either. If we assume that TB *wina* reflects a root noun of the shape **uenH*, we need to assume restoration of the initial *w-*, which should have become **w̥- > **y-*. However, it is not obvious how this could have resulted in colouring of the following **ə* to **i*, nor does it explain the same vocalism in Tocharian A. Nevertheless, the Tocharian A noun *wañi* ‘pleasure’, which must replace the original Tocharian A match of Tocharian B *wina*, shows a root without *-y-*, thus suggesting that the *i* of *winask-* etc is somehow secondary after all.

In sum, the etymology of **wəynask-* remains difficult and the relation to the nouns TB *wina*, TA *wañi* is unclear. Nevertheless, the origin of the present-subjunctive is obviously an old present formation, as could already be seen from the suffix **-sk^e/o-*.

Tocharian A *kāntsāśā/śa-* ‘confess’ could be a parallel formation (Hackstein 1995: 100–101); probably, the predecessor of *winās-* served as a model.

PT **weñ^ə/e-* ‘speak’

The Proto-Tocharian verb for ‘speak’ must have formed a present-subjunctive **weñ^ə/e-*. This is shown by the suppletive system in Tocharian A, where *weñ-* sup-

⁷⁶⁶ If with *aig* for older *eig*.

plies the preterite and the subjunctive stems, whereas the present is formed from a root *trānk-* (see 2.5.5, p 78). It is highly unlikely that this suppletive system replaces a straightforward pattern as found in Tocharian B, with a prs. {we^{ss}/_{ske-}}, a sbj. {weñ^ə/_{e-}} and a derived preterite {weñ-á-} (on the variant *wñā-* see Peyrot 2008a: 148-149). The possibility to derive the Tocharian B present from the subjunctive with loss of *ñ* as in the sbj.ger. *welle* and the vn *welñe* eliminates half of Krause's subjunctive class 7 (1952: 141; see Winter 1977: 148 and Hilmarsson 1991b, passim, who also eliminates the other half, namely *lann-* 'go out', see 4.3.5, p 368).⁷⁶⁷

Although the palatal *ñ* of the root is regularly depalatalised before dentals, i.e., in TB 2sg. *went*, 3sg. *wem*, 2sg.mid. *wentar*, 3sg.2pl.mid. *wenträ*, inf. *wentsi*, whereas it is unrecognisable in 2pl. *weñcer*, it is doubtful if this is enough to explain the lack of an alternation between *-ñə-* and *-ne-*, in principle expected in an ^ə/_{e-}-stem. The correct solution for this problem, at the same time offering an etymology, was proposed by Winter (1977: 147, after Lane 1953: 287): the simple *ñ* may derive from a geminate *ññ*, identical with the denominative suffix **-ññ^ə/_{e-}*, from earlier **-ni^e/_{o-}* (as proposed in essence already by Pedersen 1941: 170). Since the connection of *weñ-* with **wek* 'voice' (TB *wek*, TA *wak*) requires loss of **k* before *ñ* (see Winter 1977: 134), the two must have been in direct contact (without an intervening shwa), and I think that the original geminate **ññ* was simplified in exactly this constellation: **-kññ-* > **-kñ-* > **-ñ-*. In this particular case, the denominal formation may be directly compared with OHG *giwahanen* 'mention'.

As pointed out by Winter (1977: 147), the denominal origin of the verb explains that **weñ^ə/_{e-}* was originally a present. In Proto-Tocharian, it had probably become a present-subjunctive before new presents were formed independently in the daughter languages, by means of an *sk*-suffix in Tocharian B, and a suppletive verb *trānk-* in Tocharian A.⁷⁶⁸

PT **wlans^ə/_{e-}* 'carry out'

Proto-Tocharian **wlans^ə/_{e-}* 'carry out' can safely be reconstructed as a present-subjunctive, as it is attested as such in both languages. In Tocharian A, the combination of the inf. *wlessi* with the prs.ptc. *wlesmām* proves a present-subjunctive *wlāy^{sā}/_{sa-}*.⁷⁶⁹ In Tocharian B, a subjunctive stem {lan^{sə}/_{se-}} is shown by the inf.

⁷⁶⁷ Winter (1977: 151) claims that "If B *weskau* derives from *weñ-* plus a thematic suffix *-sk-*, then a corresponding pre-A present stem should contain **wayñ-* plus a thematic suffix *-s-*." This overrating of the evidence of Tocharian B leads him to posit remarkable scenarios for the loss of that alleged Tocharian A present, involving homonymy avoidance with *wes* 'excrement'.

⁷⁶⁸ As argued above, there is no need to assume that one of the two presents had already been formed in Proto-Tocharian times (pace Winter p 184-185 and passim).

⁷⁶⁹ The vocalism *āy* instead of *e* is needed for the preterite participle *wāwleṣu*.

lāmṣtsi, whereas present usage is attested with *lāmṣtār* IT396b2⁷⁷⁰ in a saṃghāvaśeṣa rule where we normally find presents and *lāmṣtār* B551a4, which is probably parallel to the prs. *māsketār*.

Whereas the reconstruction of the rhyme is straightforward, with TA *es* < **ans* as in *es* ‘shoulder’ < **anse* (TB *āntse*), the initial TA *wl-* ~ TB *l-* is slightly problematic. For correspondences *wl-* ~ *wl-* as in TA *wlāwā-* ‘control’ ~ TB *wlawā-* ‘id’ we may probably assume syncope of an initial syllable **wəl-*, but TA *lānt* ~ TB *lānt*, obl.sg. of ‘king’, shows loss of *w* in both languages: the nom.sg. is TA *wāl* ~ TB *walo*. If we reconstruct **wl-* for the TA *l-* ~ TB *l-* correspondence in the word for ‘king’, a preform suggested in any case by TA *wlāmñkāt* ‘Indra’ ~ TB *ylaiñākte* ‘id’ (Lubotsky 1994⁷⁷¹), *wl-* is still a possible reconstruction for TA *wles-* ~ TB *lans-*, and I will adopt it here.

The verb **wlans*^{ʔ/e-} is clearly derived from a noun **wlans* ‘work’, attested in TA *wles* ‘work’ (pl. *wlesant*), TB *lāms* ‘id’ (pl. *lāmsūna*). Thus, the ^{ʔ/e-} suffix could apparently be used to derive denominal verbs, which yielded presents that came to be used as present-subjunctives, just like the other denominal type in **-ññʔ/e-*. Unfortunately, the etymology of **wlans* is unknown.

PT **śaw*^{ʔ/e-} ‘live’

The ^{ʔ/e-}present-subjunctive of the Tocharian word for ‘live’ is indicated by the inf. *śotsi*, vn *śolune* and 3pl. *śāweñc* in Tocharian A and the inf. *śaitsi*, ag.n. *śayeñca* and 3pl. *śāyem* in Tocharian B. At a pre-stage of Tocharian B, the original paradigm must have been **śawe-* ~ **śayə-* from **śawe-* ~ **śawə-* < **śawʔə-*, but the *w*-variant disappeared through levelling in the finite base verb forms (see Krause 1952: 65; Winter 1988; Peyrot 2008a: 138–140). Proto-Tocharian **śawʔ/e-* has long been correctly connected with Gk. ζῶω, Lat. *vivō*, Ved. *jīvati*, Sl. *žive-* and OPruss. *giwa*, which can be reconstructed as **g^wih₃-u-* (LIV2: 215–216);⁷⁷² the Tocharian present-subjunctive goes back to a thematic paradigm with Ø-grade in the root. ‘live’ is a clear case of a Tocharian present-subjunctive deriving from a Proto-Indo-European present without aorist beside it.

TB *soyʔ/e-* ‘be saturated’

Although it is often so classified, in fact present-subjunctive function cannot be ascertained for Tocharian B {*soyʔ/e-*} ‘be saturated’. The prt.ptc. *sosoyu*, the prt. {*soy-á-*}, and, most of all, the vn *soylñe* and the inf. *soytsi* prove subjunctive function,

⁷⁷⁰ And *lāmṣtar* IT396b3, IT396b4; in both instances to be corrected to *lāmṣtār*.

⁷⁷¹ Winter, who does not mention all the correspondences given here, assumes that **wl-* became *l-* in both languages (1987: 306).

⁷⁷² The Greek may not fit the picture if a sound development **g^wih₃u-* > ζω- is not accepted. To solve this problem, LIV2 posits an *e*-grade stem **g^wieh₃-u-* with athematic inflection.

but in order to prove present function one would have to rely on 2pl. *soycer* B12b4, for which present use is likely, but hardly certain.

As argued by Hackstein (1995: 299-300) and Adams (1999: 703; see also Kloekhorst 2008b: 691), *soy-* must be cognate with e.g. Hitt. *šāḫ-i* ‘stuff’ and Gk. *ἄμεναι* ‘satisfy’, from a Proto-Indo-European root **seh₂-* (LIV2: 520-521). Tocharian B *soy-* must go back to **seh₂-i^e/o-*, a present formation possibly mirrored in Gk. *ἄεται* ‘is satisfied’.

Next to Tocharian B *soy-*, there is another verb TB *səyn-*, TA *säyn-* ‘be satiated’, which is discussed in 4.8.2 (p 472).

4.4.2 x|Ø-ROOTS

Although the number of instances is smaller than for *’ə/e-*formations, there were certainly also x|Ø-root present-subjunctives. Additional cases are *yam-* ‘do’ (4.3.7, p 372), *y-* ‘go’ (4.3.4, p 366), and *yok-* ‘drink’ (4.3.6, p 371).

TA *ken-* ‘call’

TA *ken-* ‘call’ may go back to an earlier present-subjunctive: it supplies the present to the preterite and subjunctive root *kāka-*. In principle, *ken-* could reflect a preform **kayn-* with PTA **ay* from Proto-Tocharian **ey*, **oy*, or **ay*. Unfortunately, further connections are unknown and the interpretation of this verb remains uncertain (the scenario sketched by Hilmarsson 1996: 127-128 is highly implausible).

PT **kəl_n-* ‘resound’

Tocharian A attests a present stem {*kəl_n-*} ‘resound’ with prs.ptc. (*kā*)*lnm[ā]m* and 3pl. *kāl_nñc* A299b3 (parallel to the prs. *nuseñc*). This stem might be matched in Tocharian B, although both forms attested could in fact also belong to an *’ə/e-*paradigm: 3pl. *kal_nem* and 3sg. *kal_ni*. The first of these is probably a present and the second certainly an imperfect, which proves present function for that stem. The comparison with Tocharian A suggests a root present {*kəl_n-*} for Tocharian B, too, which in turn makes likely that {*kəl_n-*} was a present-subjunctive because there is no pattern for a different subjunctive next to it.

As shown by Malzahn (forth.b), TB 3sg.mid. *kāl_nsāte* IT19b3, B617a4 must mean ‘resounded’ as well (which excludes a theoretically possible alternative reading *kāl_nsāte*). However, these forms are extremely difficult to fit together with *kal_nem* and *kal_ni*: the only parallels with a root present and an *s*-preterite are found in Tocharian A *trānk-*, *cāmp-* and *tāyp-*, where the *s*-preterite is unlikely to be of Proto-Tocharian age. The only way out seems to assume that *kāl_nsāte* belongs to a transitive verb (cf 3pl. *kāl_naskem* AS7Mb4), here intransitive because of its middle inflexion.

With Schmidt (1992: 112), **kəl_n-* may continue PIE **kl_neu-*, a *neu*-present to *kleu-* ‘hear’, attested in Ved. *śṛṇóti* ‘hears’, *śṛṇvé* ‘he is known’, YAv. *surunaoiti* ‘hears’,

OIr. *ro-cluinethar* ‘id’ (LIV2: 334-335; obviously, the unpalatalised root-final of Tocharian must go back to **-nu-* and the variant **-neu-* disappeared through levelling). Although the change from ‘hear’ to ‘resound’ is not evident, in spite of Schmidt (l.c.), this etymology offers a good explanation for the root present **kāl̥n*, as noted by Hackstein (1995: 322). At the same time, it accounts for its present-subjunctive function, which is uncertain, but plausible if problematic *kāl̥nsāte* is interpreted correctly.

PT **trānk-* ‘lament’

A Proto-Tocharian present-subjunctive **trānk-* ‘lament’ can safely be reconstructed on the basis of Tocharian B {trānk-}, present-subjunctive as proved by the combination of the prs.ptc. *trānmane* and the vn *trānkalyñe*, and further confirmed by the match of the rare preterite type {trāncá-} attested by *trāncā-neś* THT1507b5 with *lyañca* to *lānk-* ‘hang’. In Tocharian A, the corresponding stem {trānk-} supplies the present of the verb *weñ-* ‘speak’, demonstrably a recent case of suppletion in view of the imperfect 3sg. *crānkās*, which is formally an *s*-preterite (see Lane 1953: 284). This *s*-imperfect is further only found with *cāmp-*, *tšäyp-*, and possibly **kāl̥n-*.

Unfortunately, the etymology of *trānk-* is uncertain, so that we can only hypothesise that the present-subjunctive is to be explained from a root present (for suggestions on the etymology, see Adams 1999: 314 and Malzahn forth.b).

TB **pāk^w-* ‘trust’

A Tocharian B present-subjunctive {pāk^w-} ‘trust’ is proved by the combination of the prs.ptc. *pkwamane* /pāk^wámane/ and the vn *pkwalñe* /pāk^wálñe/ (for denominal *pāk^wāññ^ə/e-*, a different – though related – verb, see 4.4.4, p 394). The etymology of *pāk^w-* is unclear; the suggestion of Janda (2000: 48; taken over by LIV2: 469) to set up a root **pek^w-* ‘trust’ for Ved. *pāká-* ‘guileless, trusting’, Gk. ὦ πέπον ‘my dear’ and Tocharian *pāk^w-* is improbable. We might rather think of a connection to **pāka-* ‘intend’, though the exact derivation pattern remains obscure: if *pāk^wāññ^ə/e-* points to a noun *pāk^w-*, this could theoretically be a derivation from **pāka-* or its preform **pāk-*, but I am not aware of parallel cases where a root present is derived from a noun without further change (for a denominal *’ə/e*-present, see **wlans’ə/e-* ‘carry out’ in 4.4.1, p 387).

PT **pālk-* ‘shine’

Proto-Tocharian **pālk-* ‘shine’ is well-attested as an *ə/Ø*-root present in both languages: TB 3sg. *pālkām* (B91b5, B178a2 and B178a3 probably present) and TA 3sg. *pālkās*, 3pl. *pālkīñc*. Since there is no subjunctive attested next to it in either language, and in Tocharian B no possible subjunctive formation exists, this present may have been a present-subjunctive. In any case, the verb is probably to be connected with Gk. φλέγω ‘burn (tr./intr.); shine’, Lat. *fulgō* ‘shine’ and Gm. **blakjan* in OHG *blecchen* ‘shine’, which go back to a root **b^hlēg-* or **b^hleg-*. As

argued by Hackstein (1995: 113), Greek and Latin point to a root present because of the different root grades **b^hleǵ-* and **b^hlǵ-*, which fits the Tocharian perfectly: we only have to assume that the expected root variants with palatalised **l̥* from **le* or **ś* from **ǵe* were eliminated. It is probable that *palka-* ‘see’ and *palk-* ‘burn’ are split-off verbs from the same root (Hackstein p 112-113).

PT **lānk-* ‘hang’

The isolated Tocharian B prs.ptc. *lānkamane* /lānkámáne/ presupposes a present stem {lānk-}. No subjunctive to this stem is attested, and there is no pattern by which such a subjunctive could be formed, which points to a present-subjunctive {lānk-}. This interpretation may be further supported with *lyañca* from the fragmentary line IT702b1 /// – 9 *tu lyama tu lyañca* – /// (Peyrot 2007a: №702) ‘this sat, this hung (?)’. Although the meaning cannot be established with certainty from this passage, it is clearly a 3sg.prt., and the only possible morphological connection is with *lānk-*. The remarkable preterite formation is without doubt to be compared with {trāncá-} to *trānk-* ‘complain’, a parallelism that further supports the analysis as a present-subjunctive. 1pl. *lānkām-c* AS18Ab3 does not seem to be from this verb because it is clearly transitive (see 3.6.1, p 251, and Malzahn forth.b).

In Tocharian A, the same present stem {lānk-} is proved by prs.ptc. *lānmām*. Although this present stem could theoretically have been matched by an *ā*-subjunctive {lānkā-} (which is not attested in any case), it supports the analysis of the Tocharian B verb, whose present-subjunctive must therefore go back to Proto-Tocharian.

Proto-Tocharian **lānkə-* may have to be derived from Proto-Indo-European **h₁leng^{wh}-*, as attested in a.o. Ved. *raṁhate* ‘is swift, moves swiftly’, YAv. *rəṇjaiieiti* ‘makes fast’, OIr. *lingim* ‘jump’ and OHG *gi-lingan* ‘succeed’ (LIV2: 247-248). The proto-meaning is set up as “sich mühelos bewegen” by LIV2, but ‘be light’ seems better, certainly in view of the obviously related adjective **h₁leng^(w)h-u-* ‘light’ (Ved. *raghú-* ‘fast’, Gk. *ἐλαχύς* ‘small’, and TB *lānk^{utse}* ‘light’, which corroborates the reflex *nik* from **ng^{wh}*): the notions ‘easy’ and ‘fast’ etc are easily derived from ‘light’. The meaning of the Tocharian verb, ‘hang’, may derive from an intermediate ‘dangle’, as possibly preserved in the fixed combination e.g. TB *lānkamñane päscane* NS102b3 ‘dangling breasts’.

Although **h₁leng^{wh}-* seems to have formed a primary present (without aorist), which fits the Tocharian situation well, this present might have had a **e/o-* suffix as seen in the Indo-Iranian and Old Irish forms cited above. Since the Tocharian root present can hardly be derived from an older **e/o-* formation, one would seem to be forced to reconstruct a Proto-Indo-European root present on the basis of Tocharian.

PT **səlp-* ‘glow’

The Tocharian B verb for ‘glow’ forms a present-subjunctive {səlp-}, as proved by the combination of the prs.ptc. *sālpamane* /səlpámáne/ and the inf. *sāl(p)at(s)i*

/səlpətʃi/. In Tocharian A, the corresponding stem {səlp-} has only present function, e.g. prs.ptc. *səlpmām*, whereas {səlpā-} provides the subjunctive, cf especially sbj.ger. *səlpālyi*. Since derived *ā*-preterite-subjunctives are actually found in Tocharian A (see 2.6.3, p 96), the stem in *-ā* could be secondary, which would imply that the Tocharian B present-subjunctive can be reconstructed for Proto-Tocharian. However, Tocharian A *ā*-preterite-subjunctives are relatively rare, and, in view of the absence of a good etymology, the age nor the origin of the present-subjunctive can be established with certainty.

PT **sməy*- ‘smile’

In Tocharian B, we find safe indications for a present-subjunctive {*sməy*-} ‘smile’ with a prs.ptc. *smimane* and a vn *smilñe*. In Tocharian A, that stem shape is confirmed by the prs.ptc. *smimām*, and although it is theoretically possible that there was an *ā*-subjunctive {*smäyā*-} beside it, the latter must in that case have been secondary, so that we can reconstruct a Proto-Tocharian present-subjunctive **sməy*-. This present-subjunctive clearly goes back to a Proto-Indo-European root present **smei*- as attested in Ved. *smāyate* ‘smiles’, Latv. *smeju*, inf. *smiēt* ‘laugh’, and OCS *smějŕ sę*, inf. *smijati sę* ‘id’ (LIV2: 568-569).

PT **tʰəyp*- ‘dance’

Proto-Tocharian **tʰəyp*- ‘dance’ can probably be reconstructed as a present-subjunctive, but further connections are unclear. In Tocharian B, it forms a root present which suggests that it was a present subjunctive, but explicit subjunctive forms are not found: prs.ptc. *tsipamane* /tʰipámane/ and 3sg.prs. *ts(ĭ)pām* B118a7 (if parallel to *rättānkām*). In Tocharian A, a present {*tʰäyp*-} is proved by 3pl. *tsipiñc* A283a3 (parallel to *klyantrā*), and an *s*-preterite in imperfect function is attested in 3pl. *šepār* A301b3 (parallel to *ypār*). This peculiar *s*-preterite-imperfect is found further only for *trānk*-, *cāmp*-, and possibly **kəl*n- (see Lane 1953: 284).

PT **tʰop*- ‘prick’

Proto-Tocharian **tʰop*- ‘prick’ may have formed a present-subjunctive, but its etymology is unclear and it is possibly of onomatopoetic origin. In Tocharian A, a root present {*tʰop*-} might be attested with 3pl. *tsopiñc* (alternatively, it could be an optative, which would also allow for a subjunctive {*tʰop*ā/a-} or {*tʰopa*-}). In Tocharian B, a root present {*tʰop*-} or {*tʰop*³/e-} is attested with the historical present *tsopām-ne* B88a1 and *tsopām-ne* B127a5 (parallel to the present *pautotrā*). If TA *tsopiñc* is really a present, a Proto-Tocharian present-subjunctive **tʰop*- is likely, otherwise it is just a possibility.

4.4.3 WITH ROOT-FINAL A

Good examples of present-subjunctives with root-final *a* are hard to find. The best cases are offered by the *lyāka*-type, which is discussed in 4.4.5 (p 395).

TB *k^wa*- ‘call’

Tocharian B {*k^wa*-} supplies the present to preterite-subjunctive *kaka*- ‘call’, cf prs.ptc. *kwāma(ne)*. In view of clear parallel cases like prs. *pər*- ‘bring’ with preterite-subjunctive *kama*- (see 4.4.1, p 384), it is plausible that {*k^wa*-} ultimately goes back to a present, perhaps through an intermediate state where it was a present-subjunctive. Whether it was a present-subjunctive at an intermediate stage or not, *k^wa*- is clearly to be connected to Ved. *huvé*, *hávate* and OCS *zovǫ*, *zǫvati* etc, which go back to a Proto-Indo-European root **ǵ^heuH-* (LIV2: 180-181). In all probability, it is a direct continuation of the root present reflected in Vedic: the root-final *-a* must reflect the root-final laryngeal (probably zero grade *-*uH-*), whereas the *-w-* may have preserved in full grade root variants such as **ǵ^heuH-*, where the unpalatalised initial was levelled.

PT **praska*- ‘be afraid’

Proto-Tocharian **praska*- ‘be afraid’ probably formed a present-subjunctive, but especially the Tocharian A verb seems to have been subject to restructurings. In Tocharian B, a present-subjunctive is relatively certain, but the problem is that it shows root gradation as otherwise only found with subjunctives: {*pr^a/ska*-}. With unambiguous infinite forms lacking (the alleged vn *pārskal(ñ)e* B124a6 could also be a prs.ger. *pārskal(l)e*), present-subjunctive function of that stem can only be shown syntactically: most forms for which the function can be determined are presents, like 3sg. *prāskam* AS7Cb5 (cf *yamaskem* and *tärkänam*) or B255a1 (cf *aiskem*), but 3pl. *parskam* AS7Ca5 (parallel to *yamanträ*) is subjunctive. The other stems of the verb, the prt. {*prāská*-} and the prt.ptc. *pārskau*, also suggest that {*pr^a/ska*-} had at least subjunctive function.

In Tocharian A, a present stem {*praska*-} is proved by the prt.ptc. *praskmām*, 1sg.mid. *praskmār* and 3pl.mid. *praskanträ*, whereas a stem shape {*prāskā*-} is shown by the ger. *pārskāl*. The latter form was classified as a subjunctive gerund by Sieg, Sieglings and Schulze (1931: 450), in which they were followed by later scholars, but as far as I can see, this decision must have been based on morphological considerations: syntactically it is possible, but not compelling. The analysis of {*prāskā*-} as a subjunctive stem is supported by the prt. stem {*prāskā*-} as attested in the 3sg.prt. *pārsāk* and the prt.ptc. *pārsko*. Finally, the 1sg.prt. *prasku*, discovered by Schmidt and Winter (1992), is very difficult to fit in the stem pattern established so far: it rather points to an *s*-preterite, perhaps of the imperfect subtype.

The relationship between Tocharian A {*praska*-} and {*prāskā*-} is matched by a small group of *a*-grade root presents, e.g. *śama*- and *śalpa*- to *tsāmā*- ‘grow’ and

tsälpā- ‘pass away’. However, it is not certain whether *praska*- can be compared to this isolated pattern because its initial *pr*- cannot bear palatalisation. In addition, it is striking that no present gerund *praskal*** or subjunctive forms like 1sg. *pärskāmār*** should be attested. Therefore, the verb could well be what it seems to be at first sight: an irregular present stem, probably also used as subjunctive.

The combined evidence of Tocharian A and B requires both a stem **preska*- and a stem **praska*- for Proto-Tocharian, and it is most economical to assume that these were found in one grading stem **pr^e/ska*-. The Tocharian A stem must have been lined up with *a*-grade root presents when PTA **praska*- from **preska*- became indistinguishable from the type *planta*- from **plonto*-. Possibly, this process was favoured by the existence of a noun **praska* from **prosko* (~ Tocharian B *prosko*), as must have stood at the basis of the adj. *praskañi* ‘fearful’. The 1sg. *prasku* is probably secondary, despite its archaic outlook. It may have been formed after the subjunctive stem *praska*- (although the generalisation of this stem form made it parallel to presents), reanalysed as an *a*-subjunctive (~ Tocharian B *e*-subjunctive); a direct parallel could have been prs. *mäska*- ‘be’, 3sg.prt. *maskäs* (where *mäska* < **mäske*- must at some point have been analysed as an *a*-subjunctive).

Proto-Tocharian **praska*- is evidently to be connected with Gm. **furhtō* ‘fear’ as in OHG *forhta* (Hackstein 1995: 193-194; LIV2: 491). Apparently, it was lined up with roots with final *-a*, whereby it even took over the characteristic gradation as for instance in *plaska*- ‘think’, close both in form and in meaning. In view of the Tocharian B pair *karsa*- ‘know’ (3sg.prt. *šarsa* < **k’arsa*) and *krasta*- ‘cut’ (3sg.prt. *karsta* < **kr’asta*), ultimately from the same root, *Rə*-roots could develop secondarily from *əR*-roots if *əR* was followed by a consonant cluster (cf in great detail Kim 2007a). Thus, there is no reason to project the Tocharian position of the gradation vowel back to Proto-Indo-European (pace LIV2, l.c.). The isolation of this root in Indo-European is remarkable, though one might want to consider a connection with Lat. *parcō* a.o. ‘refrain from’ (neither the etymology by LIV2: 476, nor that by de Vaan 2008: 445 is any better).

4.4.4 **ññ^ə/e*-DENOMINATIVES

Although there are only few matches between the two languages, the *ññ^ə/e*-suffix is a productive denominative suffix in both languages and the relation with the base noun is generally transparent. Both in Tocharian A and B, these denominative verbs have a present-subjunctive with a derived preterite, e.g. prs.-sbj. TA {*tawnkäyññ^ä/a*-}, TB {*tənk^wəññ^ə/e*-}, prt. TA {*tawkäyññ^ä-*}, TB {*tənk^wəññ^ä-a*-}, both derived from the word for ‘love’, TA *tuñk*, TB *tañkw*.

The present-subjunctive function of the *ññ^ə/e*-stems is especially clear from the combination of ag.n. *tänwaññeñca* and inf. *tänwantsi* of ‘love’ in Tocharian B, and from the prs.ptc. *tuñkiññamām* and the inf. *tuñkiñtsi* vs the vn *tuñkiñlune* of the corresponding verb in Tocharian A. Further evidence is offered by the Tocharian B subjunctive stem formations *ykāmšälñe* (vn of ‘loathe’), *winälñe* (vn of ‘honour’),

and *skwäntsi* (inf. of ‘be happy’) compared to 3sg.mid. *ykāmṣantrā* AS7Cb5 (parallel to *yamaskem*), *wināññentār* B11b4 (probably parallel to *arsen-ne*) and *skwaññentrā* B11b5 (parallel to *arsen-ne*) with present function. For Tocharian A, one may adduce inf. *kāṣiñtsi* vs the opt. *kāṣiññitrā* of ‘scold’ and the vn *śewiñlune* next to 3sg. *śewiñtrā* A6a6 (present; parallel to *yaṣ*).

Evidently, this system of denominal primary *ńń^ə/e*-formations with a present-subjunctive and a derived preterite can be reconstructed for Proto-Tocharian. The system may have been inherited by the daughter languages through the carrier formations **sək^wńń-* of **sək^w* ‘pleasure’ and **tənk^wńń-* of **tənk^w* ‘love’, although the first was replaced by a secondary formation with the enlarged suffix *aṣiññ* in Tocharian A, cf *sukaṣiñtār* A51b3 (obviously through some metanalysis, where not the noun *suk*, but its adjective *sukaṣi* ‘happy’ was taken as a basis). Striking is the large portion of emotional meanings in both languages like affective ‘love’, ‘be happy’, ‘wish’ or ‘desire’ and negative ‘be ashamed’, ‘express sorrow’ etc. This is also reconcilable with a starting point at **tənk^w* ‘love’ and **sək^w* ‘happiness’.

As noted by Pedersen (1941: 170), denominative suffix **-ńń^ə/e-* must go back to a preform **-nie^ə/o-*, which is strongly reminiscent of Ved. denominatives in *-anyá-* and Gk. *-αiv-*. That similarity may be only superficial though, because that suffix is itself probably the result of metanalysis, since it is often found next to *n*-stems. If so, one would have to assume that a similar reanalysis has taken place in the prehistory of Tocharian; in view of the ubiquitous traces of nasal suffixes in the nominal inflexion, this is plausible enough.⁷⁷³

Although the suffix is found in a few isolated verbs such as *weñ-* ‘speak’ or perhaps Tocharian B *kañm-* ‘play’, it is probably not related to the Tocharian A *ñä/a-* suffix of subjunctive class 7 (pace especially Hilmarsson 1991b).

4.4.5 LYĀKA-TYPE

A marginal and poorly attested group of verbs that I will call the *lyāka*-type has no difference between present and subjunctive. Since I have discussed the type in detail elsewhere (Peyrot forth.d), I will here only summarise the most important findings.

The type is best attested in Tocharian B, where we can identify four verbs: *pləw-* ‘complain’, *lək-* ‘see’, *ləw-* ‘rub’, and *śəw-* ‘eat’. The type was originally characterised by

- 1) a present-subjunctive with non-palatalising *ə*-grade and accented root-final *a*:
{*pləwá-*}, {*ləká-*}, {*śəwá-*} (that of *ləw-* is not attested);
- 2) a preterite with palatalising *a*-grade and accented root-final *a*:
{*pławá-*}, {*láká-*}, {*ławá-*}, {*sawá-*};
- 3) a preterite participle without root-final *a*:

⁷⁷³ The suffix **-ńń^ə/e-* cannot be directly connected with the intensive suffix Ved. *-anyá-*, Hitt. *-annīe-* (Oettinger 1994) because the latter has a very different function.

pepälworsa, *lyelyakormem*, *lyelyuwormem*, *śeśuwermem*, *śeśwormem* (all absolutes).

A number of peculiarities have to be noted:

- 1) in the active only, *lāk-* ‘see’ was provided with a secondary present {*lāká^{ssə}/ske-*} (the middle is present-subjunctive {*lāká-*});
- 2) *śaw-* ‘eat’ has *a*-grade in the present participle *śawāñca* {*śawánca*};
- 3) *śaw-* ‘eat’ has created a late preterite with *ə*-grade on the basis of the present-subjunctive, i.e. class. *śāwa*, late *śuwa* (Peyrot 2008a: 145-146);
- 4) *śaw-* ‘eat’ has a hapax legomenon 1sg.prs.-sbj. *śū* (Pinault 1994: 136-184, in particular 170-171).

Whereas the active present {*lāká^{ssə}/ske-*} (1) and the *ə*-grade preterite *śuwa* (3) are clearly secondary, *śawāñca* (2) and *śū* (4) seem to be old; however, since *śū* is a hapax legomenon, it might be just a mistake for the expected *śūwau*.

Tocharian A *śwā-* ‘eat’ and *lākā-* ‘see’ are clear pendants to the Tocharian B verbs, although their morphological patterning is different. *śwā-*, which does not show any kind of gradation, supplies the present to *tāpā-*, which provides the preterite, subjunctive and imperative stems of the verb. The full grade **śawa-* is preserved in the noun *śālyi* ‘left’ (Pinault 2002b: 248-254), originally ‘food hand’, with contraction of **āwā* to *ā* (Winter 1985: 590); although it shows a different root grade, Tocharian B *śwālyai* must be cognate. *lākā-* is also part of a suppletive verb, being the present to *pālkā-*, which provides the preterite, subjunctive and imperative stems. *lākā-* further provides the imperfect with a root shape identical to that of the corresponding Tocharian B preterite: {*lākā-*}. That the imperfect is formed from the present stem is the normal procedure, but this particular type is rare; it is called the “strong imperfect” (whether *śwā-* was parallel in this respect is impossible to say, as its imperfect is not attested).

Of the remaining two Tocharian B verbs, *plaw-* ‘complain’ might find a match in the Tocharian A isolated noun *plā* ‘complaint’ (?), whereas *law-* ‘rub’ is matched by the thoroughly restructured *lā-* ‘brush away’ (on the Tocharian B ghost verb *lyyā-*, see Peyrot forth.d). Tocharian A *plā* occurs in a fixed expression *sne plā* ‘without *plā*’, but its exact meaning is difficult to extract from the texts (for a discussion, see Peyrot forth.d and for other suggestions, see Peyrot forth.e). If its meaning is something similar to ‘complaint’, we have to assume contraction across *-w-* and reconstruct a form **plāwV* with a remarkable *non*-palatalising *ā*-grade (unlike Tocharian B). Tocharian A *lā-* ‘brush away’ is quite well attested; its root form *lā-* must go back to **lāwā-* with contraction across *-w-* and all other stems are built on this root, so that we have little information about the original inflexion of the verb: prt. and sbj. {*lā-*}, prs. {*lā^{sā}/sa-*}, prt.ptc. {*lālo*} (< **lā-lā-w*). An isolated noun *lyu-wram* ‘brush’, very probably from older ‘brush thing’, presupposes a variant with a different grade: *ä* (< *ə*) with palatalisation, i.e. **lāwV*.

Although the evidence from Tocharian A is scanty, it is enough to prove the Proto-Tocharian age of the type as a whole. The fact that *lākā*- ‘see’ and *śwā*- ‘eat’ are presents in suppletive verbs suggests that they were defective at a certain stage, which is readily explained with the assumption of a Proto-Tocharian present-subjunctive. The strong imperfect of *lākā*- proves that the special preterite with palatalising *a*-grade of Tocharian B was also found in Proto-Tocharian, no matter whether it functioned as an imperfect or as a preterite there.

An historical explanation of the *lyāka*-type faces two essential questions:

- 1) what is the origin of the past tense with palatalising *a*-grade which seems to reflect old **ē*-grade?, and
- 2) how should one account for the present-subjunctive in *-a*?

As the explanation of the past tense directly touches upon complicated matters of Indo-European comparison, while it does not seem to be immediately relevant for the present-subjunctive, only the latter question is addressed here.⁷⁷⁴

Although root-final *a* is a morphological marker in almost all categories where it occurs, it must ultimately go back to root-final laryngeals of Proto-Indo-European *seṭ*-roots. Since the *lyāka*-type is marginal and displays several anomalies compared to other, more frequent classes, it is unlikely that the root-final *a* is merely a morphological marker in this class; therefore, it is only natural to see if the root-final *a* can be derived from a root-final laryngeal. Indeed, if we take a look at the etymologies of the four verbs, three of them are *seṭ*, so that the root-final *a* will actually go back to a root-final laryngeal. The three verbs where the *-a* could directly reflect **-H* are the verbs in *-w*: **plāw*- ‘complain’ is plausibly derived from **mleuH*- ‘speak’ (e.g. Ved. *brāvīti*, see LIV2: 446); as I have argued (Peyrot forth.d), **lāw*- ‘wipe away’ is probably related to Lat. *lavō* ‘wash’ and Gk. *λούω* ‘id’, commonly reconstructed as **leuh₃*- (LIV2: 418); and the connection of **śāw*- ‘eat’ with e.g. CS *žvati* ‘chew’, OHG *kiuwan* ‘id’ from PIE **ǵieuH*- ‘chew’ is generally accepted (LIV2: 168). For **lāk*- ‘see’ there are two competing etymologies, which both derive the verb from *aniṭ*-roots in Proto-Indo-European: either it goes back to **lēǵ*- ‘gather’ (Lat. *legō* ‘read’, Gk. *λέγω* ‘gather’; LIV2: 397), or to **leuk*- ‘shine’ (e.g. Hackstein 1995: 251).

If the root-final *a* belongs to the root, as is very likely in view of the *seṭ*-origins of three of the verbs, this means that, in Tocharian terms, the present-subjunctive is a root formation: the endings are added directly to the root. This situation may well be

⁷⁷⁴ The moot point is whether the palatalising *a*-grade can be identified with the long vowel perfect (or preterite) of the Lat. type *legō*, *lēgī*, the Gm. type Goth. *bairan*, *bērum* (< **b^her-*, **b^hēr-*), and the frequent Albanian type *mbledh*, *mblodha* (< **-lēǵ-^e/o-*, **-lēǵ-*), as reconstructed by Brugmann (1916: 433), but the subject of much debate ever since. The recent solution to take these long vowel formations as “Narten imperfects” offers no explanation for the distribution of the vowel grades (Weiss 1996: 674; Jasanoff 2003: 193), but it does lead to a steep rise of “Narten roots”, of which there can actually have been only very few in Proto-Indo-European, if they existed at all (de Vaan 2004).

old: for **mleuH-* ‘speak’ a root present is ascertained by Ved. 3sg. *brávīti*, 3pl. *bruvánti* < **mleuH-ti*, **mluH-enti*. For **ǵieuh-* an original root present is a good possibility as well because it seems that two root grades **ǵieuh-* and **ǵiuH-* are needed, but the evidence is definitely less certain. The verb for ‘wash’ is a difficult case because Lat. *lavō* presupposes *o*-vocalism, as it is also found in Greek. Although the Greek root form $\lambda\omicron(\text{f})\epsilon-$ is usually derived from **lewo-* < **leuh₃-* through metathesis, there is no ready solution for the Latin formation. Since the formation of **lak-* ‘see’ must at least in part be secondary (because the root-final *a* cannot be old), it is better left aside for the moment.

The inflexion of the Tocharian present-subjunctive can of course be easily explained from an older root-present; a little bit of paradigmatic levelling is all that is required. That is to say, the non-palatalised initial of the Ø-grade form of the plural was levelled against the palatalised initial of the *e*-grade singular allomorph, e.g.: sg. **mleuH-*, pl. **mluH-* > sg. **plāwa-*, pl. **plāwa-* >> sg. and pl. **plāwa-*. However, this does not yet account for the lack of a distinction between present and subjunctive. In my view, the fact that present and subjunctive are identical is to be interpreted, once again, as a present with no subjunctive beside it, since **mleuH-* and **ǵieuh-* probably formed only a present in the proto-language. As long as the *o*-vocalism of **leuh₃-* ‘wash’ – which is certainly not reflected by the Tocharian forms – is not explained satisfactorily, the analysis of the original stem pattern of that verb remains difficult.

An additional argument for deriving the four present-subjunctives from older root presents comes from semantics. Two denote inherently iterative actions in Tocharian: ‘complain’ and ‘rub’. Although with the generally recognised proto-meanings ‘speak’ and ‘wash’ the iterative component is perhaps less salient, the first has definitely imperfect aspect whereas for the second, which principally applies to cleaning of the body, we can safely assume that it was done by means of repeatedly rubbing the skin. ‘eat’, which is not clearly iterative as such, must derive from the evidently iterative ‘chew’. Whether ‘see’ derives from an iterative verb depends on its etymology, of course; but again, this verb does not fit perfectly to the others that end in *-w*. We definitely need to reckon with the possibility that these four verbs influenced each other, but all in all, the derivation of the present-subjunctives of these four verbs from a Proto-Indo-European present is plausible.

4.4.6 SK-CAUSATIVES

Although within the verbal system present-subjunctives generally belong to non-productive patterns, the majority of the Tocharian B present-subjunctives belong to the productive category of *sk*-causatives.⁷⁷⁵ In Tocharian A, the situation is different:

⁷⁷⁵ That this category was productive is evident from the statistics: I have counted about 100 instances in Tocharian B (including a small group without base verb), against about 30 certain examples in Tocharian A, to which, however, the bulk of *s*-presents for which the subjunctive is uncertain must be added.

the *s*-causative offers a clear match to the Tocharian B *sk*-causative, but its present and subjunctive are formally distinct. However, as pointed out in 2.5.1 (p 51) and 2.6.6 (p 102), the distinction in Tocharian A is unique in the system, not to say abnormal: superficially, it seems that the subjunctive is derived from the present stem, e.g. prs. {rāytw^{ṣā}/_{sa}-} of ‘connect’, with an *infix* {<ā>}, i.e. sbj. {rāytw<ā>^{ṣā}/_{sa}-}. Since an *ā*-infix has no parallels elsewhere in the system, I felt compelled to analyse the present as having a suffix {-^{ṣā}/_{sa}-} and the subjunctive as having a suffix {-^{āṣā}/_{sa}-}.

Both the unique subjunctive formation in Tocharian A and the present-subjunctive in Tocharian B need to be explained historically. It has long been noted (e.g. Krause 1952: 86-87, although the way he puts it is not very precise) that in Tocharian B any root-final *a* of the non-causative verb is dropped in the derived causative: e.g. base verb *rāytta*- ‘be connected’, prs.-sbj. of the causative {rāyttā^{ṣṣ}/_{ske}-}, not **{rāytta^{ṣṣ}/_{ske}-}. Thus, any historical treatment of the causative will need a sound law that accounts for the loss of root-final *a* in the Tocharian B present-subjunctive, and if possible, the same sound law should offer an explanation for the contrast between *ā* in the present and *ā* in the subjunctive in Tocharian A. Since in Tocharian B the causative is systematically accented on the root, whereas otherwise suffix accent is the norm, e.g. *anāṣṣām* /anāṣṣən/ ‘breathes’ vs *ānāṣṣām* /ānāṣṣən/ ‘makes breathe’, the loss of the root-final *a* is to be sought in the initial accent.

Recently, Malzahn (forth.a) has made the important discovery that in quite a number of Tocharian B causative forms – both present and subjunctive – the root-final *a* is in fact preserved, which allows a specification of the conditions for the sound law. A scrutiny of the 46 forms she lists shows that the vast majority has the suffix variant {-^{ṣṣ}-} (including the variants *ṣ* with syncope and *s* before *t*); the only forms with {-_{ske}-} are prs.ptc. *triwaskemane* B322b5, 1sg.prs.-sbj. *prutkaskau* B93b4, 1sg.prs.-sbj. *rittaske_u* AS12Fa2, prs.ptc. *lañkaskemane* B322a4, and 3pl.prs.-sbj. *spārttaskem* AS7Ba4. Therefore, the conditions of the sound law as suggested by the data from Tocharian B are 1) *a* is directly preceded by the accent and 2) followed by a (heavy) syllable containing *e*. Without doubt, the phonetic background was that in forms such as 3pl. **ánasken* the last syllable had a secondary accent, i.e. [‘anaṣken], which made the middle syllable with *a* weaker than in e.g. 3sg. **ánaṣṣən* [‘anaṣṣən] without secondary accent on the ending.

Malzahn also adduced Tocharian B 3sg.sbj. forms with weakening of root-final *a* to *ə*, e.g. *krāstām* B33a3 or *naukām-nne* B407a2. According to her, these forms prove that the conditions of the sound law were 1) *a* is directly preceded by the accent and 2) it was found in a closed syllable. Although these conditions could in fact account for the 3sg.sbj. forms of the type *krāstām*, they cannot explain the causative forms. Since no Tocharian B word starts with a geminate, the syllable break in the sequence *aṣṣ* must have been halfway the geminate, i.e. *aṣ.ṣə*, and probably the same was true of *aske*, i.e., *as.ke*. If in any of the two sequences the *a* was in an open syllable, it was probably *a.ske*. Thus, we would then expect to find remnants of *a*-vocalism before *sk*, not before *ṣṣ*. As to the explanation of the 3sg.sbj. forms, I have no clear-cut solution. Although the phenomenon is probably linguistically real (as Malzahn argues), and

not the result of spelling mistakes, it is very rare indeed, and perhaps not connected to the loss of *a* in the causatives. My conditioning would in fact work for *naukāṃ-nne* B407a2 (< **ṇawkan₁ne*) as well, but since that is the only 3sg.sbj. form with weakening that is suffixed, all others would have to be analogical.⁷⁷⁶

Evidently, the loss of medial *a* in the Tocharian B present-subjunctive and the Tocharian A present is too similar not to be captured by the same rule. Probably, the sound law took place in Proto-Tocharian, yielding a mixed paradigm with an alternation between *ask*-forms and *ask*-forms. On the evidence of the distribution to be gathered from Tocharian B, this mixed paradigm was 1sg. *CáCə-ske-w*, 3pl. *CáCə-ske-ncə*, etc with medial *ə* vs 2sg. *CáCa-sk'ə-tə*, 3sg. *CáCa-sk'ə-*, etc with medial *a*. Apparently, Tocharian A took advantage from this alternation to mark the subjunctive in an unambiguous way. Since *ā* was the most frequent subjunctive marker, the forms with *ā* (< **a*) were generalised as subjunctives and those with *ä* as presents. In other words, the unique infix marker *ā* arose from paradigmatic split of a mixed paradigm with *-āṣä-* : *-äsa-* allomorphy.

Contrary to what has been argued above, Hackstein rather thinks that the Tocharian A causative subjunctive is old, going back to the Proto-Indo-European desiderative suffix **-h₁s^e/o-* (2004a: 90; seemingly accepted by Kim 2007b: 193). In my view, his comparison is too rash: it does not explain that the *ā^{sä}/sa-* suffix is confined to the causative, nor how it could disappear in Tocharian B. If Proto-Tocharian had had such a clear-cut distinction between present and subjunctive as we find in Tocharian A, there would have been no reason why the distinction would have been given up in Tocharian B. Since the causative forms with medial *a* discovered by Malzahn are equally distributed among presents and subjunctives, but show the salient phonological distribution outlined above, we can now be sure that the causative formed a present-subjunctive as in Tocharian B, and the distinction in Tocharian A is secondary.

The causative preterite has been the issue of a long debate since Schulze (1924). The moot point is whether the Tocharian A reduplicated preterite {*ra-räytw(ā)-*} (e.g. 1sg. *rāritwā*, 3sg. *rāritu* 'connected') can be reconciled historically with its Tocharian B pendant with palatalising *a*-grade, but without reduplication, e.g. 3sg.mid. *raittate* {*rāytta-te*} (with palatalisation, e.g. 2sg. *śāmasta* {*ś(c)āma-sta*} 'you put' of *stām-caus.*). Alternatively, the Tocharian B preterite type was connected with the type *lyāka*, which also has palatalising *a*-grade (cf e.g. Pinault 2008: 600). Since the functional match between the Tocharian A and B causative preterites is perfect, whereas the *lyāka*-type has no causative value whatsoever, and, moreover, the two

⁷⁷⁶ Forms like *mānta* B284b7 (arch.) < *mā nta* /*má nta*/, adduced by Hackstein (2004b: 289, referred to by Malzahn l.c.), may be parallel if the combination was unstressed and enclitic *nta* made *mā* 'medial'. It must be noted that the sound law formulated here occurred in Proto-Tocharian and was no longer operative in Tocharian B: in counterexamples such as TB *kalatar* /*kälatar*/ 'you will bring' (adduced by Hackstein 1995: 33), the root-final *a* was evidently restored, e.g. from other forms with light syllable endings.

types differ in their accent (see Peyrot forth.d and above 4.4.5, p 395), the Tocharian A and B causative preterites must reflect the same formation.

Evidently, the Tocharian A causative preterite type with reduplication is more original than the Tocharian B type without. However, how exactly the Tocharian B type is to be derived from an older reduplicated type is a complicated matter, and it is not our primary concern here; for a detailed account that starts from roots with initial *y-* and *w-*, see Kim (2003; 2009: 38–41).

The assumption of older reduplication in the Tocharian B causative type is often used to explain two other phenomena: 1) the consistent initial accent and 2) the gemination in preterite participles with simple obstruent initials, i.e. the type *ceccalor* to the causative preterite *cāla* ‘(s)he carried’ (2.5.8, p 90; Winter 1994a: 302–303). The explanation of the initial accents starts from the idea that the accent was fixed on the second syllable – the root – when the reduplication was still there, which became the first syllable when the reduplication was lost, for instance **rV-rāyittaṣṣə-* ‘connects’ > *rāyittaṣṣə-n* <rittāṣṣām>. The gemination in the preterite participle is explained by restoration of the reduplication: the geminate represents the original reduplication *cācəl-*, where the *ə* was syncopated, *ccəl-*, and the reduplication restored: *ce-ccəl-* (Schulze 1924: 172–173). Alternatively, one could say that the reduplication vowel was lost in the present-subjunctive, but through an initial geminate: **tātālaṣṣən* ‘lifts up’ > **ttālaṣṣən*. This geminate then spread throughout the causative verb, but it could be preserved only in the preterite participle since it was intervocalic because of the reduplication there.

Although the above account of the preterite had to remain brief, the relationship of the preterite with the present-subjunctive is relevant for the study of the Tocharian subjunctive. Whereas the relationship between the Tocharian A and B causative preterites has always drawn the attention, not many words were wasted on the present-subjunctive. As an exception we can quote Couvreur, who compared the Tocharian present to the Sanskrit causative in *āya* and the preterite to the Skt. reduplicated aorist (1938a). However, the functional agreement between the present formations is only of typological value as the suffixes are clearly different. Moreover, as it is found in all types of presents, the Tocharian *ṣṣə/ske-* suffix has no causative value, pace Couvreur, who claims “c’est avant tout en tocharien que *ske/o* revêt une valeur essentiellement causative” (1938a: 96). The correct interpretation is rather that the *ṣṣə/ske-* suffix marks presents, whereas the causative is distinguished by its initial accent (Winter 1980a: 440; Hackstein 1995: 3).

Although the identification of the Tocharian preterite with the Sanskrit reduplicated aorist is at first sight attractive indeed, it copes with the problem that the Sanskrit type is secondary (see e.g. Harðarsson 1997; Kim 2003). With Harðarsson (1997: 101), we seem to be forced to derive the Tocharian reduplicated preterite from the imperfect of the transitive reduplicated present that stood at the basis of the Sanskrit reduplicated aorist as well. As Kim puts it (2009: 40), it is likely that “the Tocharian Cl. II preterite and Indo-Aryan (transitive-)causative aorist reflect a common formation, [...] although their grammaticalization took place separately”.

In view of the above, a theory of the relationship between the present-subjunctive and the preterite of the causative should explain 1) why the $ssə/ske$ -suffix marks the present, not the causative; 2) why the causative is characterised by initial accent throughout; 3) why only the preterite has a morphological match outside Tocharian; and 4) why in causatives the present is not distinct from the subjunctive. In addition, the causative system as such needs to be explained: as Proto-Indo-European clearly did not have such a system, why does Tocharian have systematically distinct causative verbs at all?

In my view, the solution is rather simple: Tocharian inherited only a reduplicated formation which came to be used as a causative preterite, and the present was secondarily derived from the preterite with the $ssə/ske$ -suffix. As there was no subjunctive, the present became a present-subjunctive by default. The old age of the preterite compared to the other stems is shown in the synchronic situation that it is the only primary preterite with a derived present-subjunctive. Normally, it is rather the other way round, namely present-subjunctives have derived preterites. As outlined above, a separate subjunctive was created in Tocharian A, whereas in Tocharian B the original reduplication is reflected only indirectly in the form of the initial accent. Before the addition of the present, the causative preterite may have been defective; afterwards, the “causative system” had been established.

4.4.7 CONCLUSION

A considerable number of present-subjunctives can be reconstructed for Proto-Tocharian: for isolated verbs and restricted classes, as well as for categories of unlimited productivity such as the *sk*-causatives. Although their origins are diverse, all can be derived from present formations, which confirms Winter’s idea that they are presents without subjunctive. $ʔ/e$ -formations are by far the best represented, but typical “subjunctive classes” are found, too, notably $x|Ø$ -root and $x|a$ -root formations. In general, $x|Ø$ -root and $x|a$ -root present-subjunctives reflect root presents to *aniṭ* roots (without root-final laryngeal) and *seṭ* roots (with root-final laryngeal) respectively, whereas $ʔ/e$ -present-subjunctives reflect $*e/o$ -presents without aorist beside them.

Original root present-subjunctives are at least PT **palk-* ‘shine’, PT **sməy-* ‘smile’ (both 4.4.2, p 390 and p 392, respectively), PT **yə-* ‘go’ (4.3.4, p 366) and the whole *lyāka*-type (4.4.5, p 395), and possibly PT **lən̄k-* ‘hang’ (4.4.2, p 391) and TB *k^wa-* ‘call’ (4.4.3, p 393). PT **praska-* ‘be afraid’ is certainly secondary because it has *a* added to the *sk*-suffix.

Tocharian B *ay^{sə}/ke-* ‘know’ (4.4.1, p 379) very probably continues an old perfect, and possibly PT **yok-* ‘drink’ (4.3.6, p 371) as well.

Original $*e/o$ -presents are reflected in at least PT **pask^ʔ/e-* ‘protect’, PT **pə^ʔ/e-* ‘bring’, TB *l̄ə^{sə}/ke-* ‘lie’, PT **wəynask^ʔ/e-* ‘honour’, and PT **śaw^ʔ/e-* ‘live’ (all 4.4.1, p 378). The $*e/o$ -present-subjunctive of PT **yars^ʔ/e-* ‘honour’ (4.4.1, p 385) must be a Tocharian innovation, just like the *sk*-causatives (4.4.6, p 398) and the denomi-

natives (4.4.4, p 394), including PT **weñ^ə/e-* ‘speak’ (4.4.1, p 386). Verbs like PT **katk^ə/e-* ‘be glad’, TB *ñ^əss^ə/ske-* ‘desire’, TB *nask^ə/e-* ‘bathe’ (all 4.4.1, p 378) show the *sk*-suffix, an innovation of Tocharian, but they could nevertheless go back to original primary presents.

4.5 $\partial|\emptyset$ -ROOT SUBJUNCTIVE

The prehistory of the Tocharian $\partial|\emptyset$ -root subjunctive and the related *s*-preterite system is perhaps the most debated issue in Tocharian historical linguistics. Although all three important stems, namely preterite, subjunctive and present, have been the subject of a number of studies, the system as a whole has received little attention, which is all the more surprising since the patterns were already pointed out by Lane (1959: 165). There are essentially two types: 1) a type that was originally only active, with an *s*-present, a root subjunctive and an *s*-preterite, and 2) a type that was originally only middle, with an *s*-present, an *e*-subjunctive and a root preterite. Further, next to the *s*-present verbs, there is a small category with *sk*-presents instead.

Tocharian B	active	middle		active	middle
present	$\text{ṣ}^{\partial}/\text{se}$ <i>nāk^{ṣṣṑ}/se-</i>	<i>nāk^{ṣṣṑ}/se-</i>	$\text{ṣṣ}^{\partial}/\text{ske}$	<i>awnā^{ṣṣṑ}/ske-</i>	<i>kānā^{ṣṣṑ}/ske-</i>
subjunctive	<i>n^e/ṑk-</i>	<i>nāke-</i>		<i>awn-</i>	<i>kān^ə/e-</i>
preterite	<i>nek-^ṑ/sā-</i>	<i>nek-sa-</i>		<i>awn-^ṑ/sā-</i>	<i>ken-sa-</i>
Tocharian A	active	middle			
present	<i>nāk^{ṣṣā}/sā-</i>	<i>nāknā^{ṣṣā}/sā-</i>			
subjunctive	<i>n^a/āk-</i>	<i>nāka-</i>			
preterite	<i>ñak-^ṑ/sā-</i>	<i>nak-</i>			

In the next section, I will briefly introduce the main problems of these stems and their patterns.

4.5.1 INTRODUCTION

Although the historical explanations of the root subjunctive, the *s*-preterite and the *s*-present all present serious and intricate problems, it can hardly be overemphasised that it is in the first place the way they pattern, the system, that must be focused on. The *s*-present is *not* an independent category, nor can the root subjunctive and the *s*-preterite be analysed without taking the other stems into account. Therefore, it is striking that most treatments have concentrated on one stem only, proposing atomistic solutions. Below, I will first discuss some approaches to the root subjunctive, before I proceed to the *s*-present and the *s*-preterite, which have received most attention.

root subjunctive

The root subjunctive is very likely to represent something archaic. First of all, it has no suffix (unlike the preterite, not even a suffix *-sa-* in the 3sg.): it is a genuine root formation. Second, it displays vowel gradation in the root, with *e*-grade in the active singular and *a*-grade elsewhere. Although the *e*-grade is reminiscent of the *e*-grade in the preterite, it does not go together with palatalisation in this category: a mechanical reconstruction is inevitably **o*, not **ē*.

For the root subjunctive, not many different explanations have been offered. Mostly, scholars focus on the *e* : *a* gradation. As they find no initial palatalisation, they conclude that it reflects a pre-type with **o* : $\emptyset$ gradation, for which in the classical reconstruction of Brugmann only the Proto-Indo-European perfect qualifies (1916: 436). As Winter has argued (1994a: 305-306), the perfect could additionally be used to explain the initial accent of the subjunctive, which would reflect the original reduplication of the perfect in an indirect way.

Others attach more weight to the evidence of Tocharian, arguing that exactly this Tocharian type could preserve something old that was lost in the central branches. For instance, **o*-grade is found in the verb for 'grind' (Lat. *molō*, Gm. **malana-*) in a number of languages, which has led Jasanoff to set up an inflectional type with **o* : **e* gradation (e.g. 1988a: 59-60). Whether Tocharian provides reliable evidence for such a type is discussed further below, but evidently the initial palatalisation caused by the **e*-grade should then have disappeared through levelling of the unpalatalised initial of the original **o*-grade. Such a levelling seems trivial, and perhaps it is indeed, but we should then ask ourselves if there is any good reason to exclude levelling in the opposite direction, which would allow for a reconstruction with **ē* : $\emptyset$ gradation, for instance.

Yet a third approach derives the subjunctive from the *s*-aorist, see below under "*s*-preterite".

s-present

The *s*-present is peculiar as such, as the formation is rare in Indo-European (see e.g. Kuiper 1934), but it is most of all its frequency in Tocharian that is striking. However, compared to the preterite and the subjunctive, it has the simplest root shape (with stable *a*-grade, without gradation or palatalisation) and a clearly distinct suffix: it does not seem to be the kernel of the *s*-preterite system.

The *s*-present has been the topic of an extensive and highly reliable study by Hackstein (1995). His approach was to take a selection of *s*-present verbs with good etymologies and compare the stem patterns with those in the other Indo-European languages. His main conclusion is that the *s*-suffix turns intransitive verbs into transitive verbs and that it leaves transitive verbs transitive. He finds no special correlation between the *s*-present verbs and the Proto-Indo-European *s*-aorist; the *s*-present verbs rather seem to correspond to root aorists in Proto-Indo-European.

Whereas others have argued that the *s*-present continues a Proto-Indo-European *s*-aorist subjunctive (Jasanoff 2003: 180-182, Pinault 2008: 603), i.e. in Tocharian terms an $\varnothing$ /*e*-derivation of an *s*-stem (probably the *s*-preterite), Hackstein considers this impossible because the non-palatalising $\varnothing$ -grade of the Tocharian *s*-present is incompatible with the supposed $\ast e$ -grade of the *s*-aorist subjunctive in Proto-Indo-European.

Then he concludes that any scenario for the rise of the *s*-presents and their connection to the *s*-preterites must be hypothetical and unverifiable: “Trotz der funktionalen⁷⁷⁷ Affinität der *s*-Morpheme im tocharischen Präsens VIII und Prt. III bleibt eine historische Verbindung beider spekulativ.” (1995: 165). How Hackstein’s objections to the formal side of a derivation of the *s*-present from the *s*-aorist subjunctive are to be evaluated is discussed below, but the semantic problems should not be overlooked: although a wide range of Tocharian subjunctives reflect older presents in one way or another, presents do not normally continue subjunctives (see Adams 1994: 4).

s-preterite

Of the three principal stems of the root subjunctive system, it is the origin of the *s*-preterite that has received most attention. The problem with the *s*-preterite is that it has some, but not all features of the Proto-Indo-European *s*-aorist. That is to say, the characteristic $\ast \bar{e}$ -grade reflected in Ved. 2sg./3sg. *apṛāt* ‘asked’ seems to be matched by the palatalising *a* of Tocharian A 3sg. *ñakäs* ‘destroyed’, but the *s*-element itself is found only in the 3sg. of the active and in the middle. The intransitive root preterite counterpart TA 3sg.mid. *nakāt* ‘perished’ even lacks the *s* altogether, whereas the root vocalism is at first sight incompatible with any reconstructed root grade of the *s*-aorist: mechanically reconstructed, it points to $\ast o$.

The history of the *s*-preterite has been dealt with by a number of scholars. There are essentially three approaches: 1) the *s*-preterite is a conflation of the Proto-Indo-European *s*-aorist and the perfect; 2) the *s*-preterite derives from a special formation of which it is itself one of the best representatives; and 3) it derives from the *s*-aorist only, but the *s*-element is lost in most forms.

The first approach has been the standard for decades, cf e.g. van Windekens (1982, especially p 160; Adams 1988: 82-83). The assumption that the *s*-aorist and the perfect are conflated in the Tocharian *s*-preterite is thought to explain the mixture of forms with and without *s*: the *s*-forms are derived from the *s*-aorist and the *s*-less forms from the perfect. The disbalanced representation of the two categories could perhaps be attributed to the stronger resistance of the 3sg., i.e. the *s*-preterite was originally an *s*-aorist, but in all forms except the 3sg. (and the middle, apparently) it was replaced by perfect forms. An evident advantage of this approach is that the endings of the preterite derive from the perfect (4.2.2, p 347), but a disadvantage is

⁷⁷⁷ Apparently, his “funktional” refers to their function in morphology, not in syntax.

that the precise mechanism of merger remains mysterious. Moreover, the root grades themselves – which are the same for the 3sg. with *s* and the other forms without – would then have been adapted from the *s*-aorist, whereas the suffix part derives from the perfect.

The second approach has principally been advocated by Jasanoff (1988a). It attaches much value to the limited distribution of the *s*-element and connects it to the Hitt. 3sg. *hi*-preterite ending *-š*. According to Jasanoff, the correspondence between Hittite and Tocharian points to an original paradigm with *-s* only in the 3sg., which was the basis for the genuine *s*-aorist with *s* throughout that developed in the central branches after Hittite and Tocharian split off. Although his suggestion that the *s*-aorist developed from a 3sg. with an *s*-element is difficult to falsify, the evidence for exactly the pattern of inflexion he reconstructs is meagre. As Kloekhorst shows (2008b: 142–143), Hittite offers no proof for a paradigm with **o : *e* gradation. The alleged gradation pattern is not proved by Tocharian either because no paradigm displays non-palatalising *e*-grade contrasting with palatalising *ə*-grade. Needless to say, paradigms of the type 1sg./2sg. **nok-*, 3sg. **nek-s-*, pl. **nek-* (Jasanoff 1988a: 66) contain enough alternations to produce the attested forms of Tocharian as well as those of the other languages, but no Tocharian morphological alternation, nor any specific stem pattern type points to such distinctions.⁷⁷⁸

The third approach has been developed by Ringe (1990) and Kortlandt (1994), independently of each other, so it seems.⁷⁷⁹ Both assume that the *s*-preterite is to be derived from the Proto-Indo-European *s*-aorist only and that the *s*-element is lost in most forms. Apart from salient differences in style (the extremely succinct text of Kortlandt finds its diametric counterpart in the detailed argumentation of Ringe), the two scholars mainly diverge on the exact principles of the loss of *s* and the scope of their explanations.

Ringe assumes that the synchronic preterite endings were taken over from the perfect one by one to compensate for several mergers of different persons in the original *s*-aorist paradigm. This forces him to offer an explanation for the loss (by sound law) or removal (by analogy) of the *s* in all forms of the paradigm, which is not in all cases easy.

⁷⁷⁸ While for instance Pinault leaves open the possibility that Jasanoff's theory contains useful elements (2008: 605), Adams (1994) accepts it in part, but reconstructs an old *is*-aorist instead. Although one could argue indeed that the Tocharian *sa*-suffix is preceded by *ə* (I have a different view, expounded in 4.5.5, p 413), Adams' sound law *is > əs* – without palatalisation – is highly questionable: a suffix *is* would, in my view, simply not yield the required forms in Tocharian. Moreover, the comparative evidence of at least the Hittite can be discarded (see Kloekhorst 2006 on the *dai*-type).

⁷⁷⁹ The chronological difference is explained by the delay in the publication (eventually 1994) of the contributions of the 1990 Berlin *Arbeitstagung* on Tocharian, where Kortlandt presented his paper. He had already assumed loss of *-s-* in the Tocharian reflex of the *s*-aorist in earlier articles (1984: 181–182; 1985: 116–117).

Conversely, Kortlandt assumes that the replacement of the Proto-Indo-European secondary endings by the perfect endings is part of a larger process, which allows him to assume that the *s*-preterite paradigm was built on one or two forms only, so that he does not need to explain the loss of *s* for all forms separately. As he assumes – unlike Ringe – that the *s*-aorist had $*\bar{e} : *e$ gradation, he is able to link the disappearance of the *s* to the rise of the root subjunctive with $e : \mathfrak{a}$ gradation. However, his account is so brief on a number of relevant points that it has not met with many positive reactions (see e.g. Adams 1994: 7–8). Especially his reference to the correlation between initial palatalisation and transitivity (as noted by Winter 1980a) to explain the lack of initial palatalisation in the root subjunctive is unsatisfactory: this correlation is confined to $\mathfrak{a}|\mathfrak{a}$ -root preterites and has not spread beyond that class.

main aim

Below, I will follow Kortlandt's approach because it has the greatest explanatory value concerning the stem pattern. However, his account of the depalatalisation in the subjunctive is untenable and I will argue for an original paradigm that reflects $*\bar{e} : \emptyset$ gradation. Although I will make suggestions for the origin of this peculiar gradation pattern, the main aim of this section is to show how the attested forms can be derived from it.

4.5.2 THE PRETERITE-SUBJUNCTIVE

As argued in chapter 2 (especially 2.10, p 153), the *s*-preterite and the $x|\emptyset$ -root subjunctive are so closely related that they should actually be analysed as *one* stem. That is to say, the two stems are identical and one is to be derived from the other by means of zero derivation. For instance, the Tocharian B subjunctive of 'ask', $\{\text{pr}^e/\mathfrak{a}\text{k}-\}$ has the two stem forms $\{\text{prek}-\}$ and $\{\text{pr}\mathfrak{a}\text{k}-\}$ and the preterite has the basic stem $\{\text{prek}-\}$ and the extended stem $\{\text{prek-sa}-\}$; since the extension $\{-\text{sa}-\}$ is only found in the 3sg. (and in the middle), we should take it as an inflectional feature of the preterite stem $\{\text{prek}-\}$. Although in Tocharian A many $x|\emptyset$ -root subjunctives have been replaced by $\tilde{n}\bar{a}/\mathfrak{a}$ -subjunctives, a small number is preserved there as well (2.6.7, p 105) and they allow for the same analysis as the Tocharian B forms. Without doubt this situation can be projected back to Proto-Tocharian: in terms of affixation, a grading root subjunctive $C^e/\mathfrak{a}C-$ was matched by an identical preterite stem with an extended variant in $-\text{sa}-$.

However, two other morphological distinctions between the subjunctive and preterite stem are found, one in Tocharian A and one in Tocharian B. In Tocharian A, the initial is palatalised in the preterite but not in the subjunctive (2.5.4, p 67) and in Tocharian B the subjunctive has initial accent whereas the preterite has a peculiar accent, mostly on the root, but underlyingly on a root-final shwa. Whereas the initial palatalisation of Tocharian A is part of a larger problem with the initials, discussed

below (4.5.4, p 411), the accent difference in Tocharian B requires a more thorough look at the nature and history of the accent, for which I refer to 4.5.5 (p 413).

4.5.3 GRADATION AND PALATALISATION

Although the gradation patterns of the subjunctive and the preterite are not identical, the differences are in fact slight. To begin with, both stems have two gradation variants: *e* and *ə*. Thus, if initial palatalisation is not considered, neither of the two stems has a uniquely characterised form. In the middle, both have *ə*-grade throughout, and in the singular active both have *e*-grade. The difference is confined to the plural active, where the subjunctive has *ə*-grade, whereas the preterite has *e*-grade.

While gradation does not distinguish the subjunctive and the preterite, palatalisation clearly does. That is to say, in Tocharian B the unpalatalised initial was levelled, without doubt through influence from the middle on the active paradigm, but Tocharian A must represent the original Proto-Tocharian situation, as is commonly recognised (e.g. Ringe 1990: 185-189): the whole subjunctive has an unpalatalised initial, e.g. *nak-* ~ *näk-*, whereas we find in the preterite a contrast between palatalised initials in the active versus non-palatalised initials in the middle. Two verbs with an archaic pattern suggest that the non-palatalised middle had *ä*-grade: ‘ask’ with act. {prak-} vs mid. {präk-sä-} and ‘put’ with act. {cas-} vs mid. {täsä-}. The *s*-less middle, only attested in Tocharian A, conformed to this pattern with non-palatalised initials, but diverged with its *a*-grade (Proto-Tocharian *e*-grade), e.g. act. *ñak-* vs mid. *nak-*.

Although the gradation of the Tocharian A *s*-less middle is puzzling, all the more in view of the poor attestation of the active *a* : middle *ä* gradation type, it is very probable that the regular pattern of the preterite was that of ‘ask’ and ‘put’. This latter pattern is corroborated by Tocharian B: the initial palatalisation in the active has been removed, but the gradation is much better preserved than in Tocharian A.

The picture emerging is that of a correlation between *e*-grade and initial palatalisation on the one hand, and *ə*-grade and non-palatalised initials on the other. The correlation between transitivity and initial palatalisation as noticed by Winter (1980a) cannot explain this pattern, as it is nowhere as strong as exactly here; obviously, this pattern was one of the sources of that correlation, not the target. Analogical removal of the palatalisation in the middle is further made unlikely by the laryngeal reflex in *tasa-*, the split-off stem of *təs-* ‘put’: any kind of depalatalisation would have yielded *təs-*, not *tas-* (for details, see 4.3.2, p 357).

The most economical approach to the subjunctive is to take the *e*-variant and *ə*-variant as originally identical with those of the preterite: the *e*-variant *nek-* would derive from an earlier **ñek-*, while the *ə*-variant *nək-* would have remained unchanged. In the hypothetical paradigm **ñek-* : **nək-*, we would have to assume that the initial was levelled at the expense of the palatalised variant. I am convinced that such levelling needs no specific motivation: allomorphy reduction is a frequent and

natural process. However, it may be worthwhile to point out that initial palatalisation alternations within paradigms are rare in both languages: usually, palatalisation distinguishes stems, not the active from the plural, for instance. The only other instance of such an alternation was found in the ∂/a -root preterite, where the unpalatalised variant was levelled in Tocharian B, while it was transformed into a double contrast with gradation and palatalisation in Tocharian A.

The hypothetic alternating paradigm is not attested directly, except for the irregular ∂/e -preterite of *kəm-* ‘come’ in Tocharian B, discussed in detail in 4.3.1 (p 351). As I have argued, the best explanation for this irregular preterite is to assume that it was lined up with the $\partial/\emptyset$ -root preterite-subjunctive. That irregular paradigm could serve as additional evidence for the alternating subjunctive paradigm uncovered here, but the explanation of *kəm-* is complicated and it might not be accepted by everyone. Therefore, I would like to point out that it offers only *additional* evidence for the alternating subjunctive paradigm that I reconstruct: in my view, the arguments given above are in themselves sufficient.

The preservation of the palatalised initial in the preterite – at least in Tocharian A – needs no special motivation, since levelling is never compulsory. However, it is striking that the active of the preterite has no ∂ -grade. If the plural stem of the preterite active was replaced by the singular, the logical outcome was an *e*-grade stem with initial palatalisation throughout, with little chances of levelling in the first place. If the *e*-grade in the preterite plural is original, it was without doubt matched by initial palatalisation; in that case, the spread of the unpalatalised initial in the subjunctive is even easier to understand because the subjunctive would then have been the only paradigm with palatalisation alternation.

The historical interpretation of the two stems **ńek-* and **nək-* is not evident. First of all, even apart from all other arguments against a derivation from the Proto-Indo-European perfect, these stems find no ready explanation in the perfect: the palatalised initial of **ńek-* cannot be derived from a set **nok-* ~ **nĕk-*. Needless to say, Jasanoff’s *molō*-type has exactly the reverse of what we need: his **nok-* ~ **nek-* would yield **nek-* ~ **ńak-* in Tocharian, instead of **ńek-* ~ **nək-*. As seen by many other scholars, **ńek-* points to a preform **nĕk̑-*, found e.g. in the *s*-aorist (on the loss of *s*, see below). The problem is that the only other root variant this category originally had was **nek̑-s-*, not **nĕk̑-s-*.⁷⁸⁰ Thus, as a reflex of the *s*-aorist we would expect **ńek-* and **ńak-*, ultimately from **nĕk̑-s-* and **nek̑-s-*, respectively.

If Kortlandt’s derivation of Tocharian B *śem* ‘came’ from a root aorist with lengthened grade in the 2nd 3rd person singular is correct (see 4.3.1, p 351), it is possible that this pattern influenced the *s*-aorist pattern, especially when the *s*-aorist started losing its *-s-*. Consequently, the weak grade **e* of the *s*-aorist could have been replaced by the weak grade $\emptyset$ of the root aorist. The existence of a Tocharian root

⁷⁸⁰ Zero grade forms in Vedic ultimately derive from older root aorists, as shown by Narten (1964: 23–28).

aorist type with **e* : Ø gradation (see 4.6.5, p 442) is no counterargument because this type is confined to *seṭ* roots. Since Kortlandt's theory starts from an originally phonetic lengthening in monosyllables, this lengthening cannot have affected *seṭ* roots since the 2nd and 3rd singular injunctive were not monosyllabic there. However, as noted in 4.3.1 (p 351), it is better to remain cautious with the application of Kortlandt's theory because the comparative evidence for the expected distribution of **ē* in the root aorist is slim.

In my view, the solution to the problem of the weak grade of the Tocharian *s*-preterite system must be sought in the non-palatalising *ǝ*-grade of the accompanying *s*-present. As I argue below (4.5.6, p 419), this *s*-present derives from an *sk*-present with regular non-palatalising *ǝ*-grade from Proto-Indo-European zero grade. Even if my account of the *s*-present is not accepted, its root grade may have been the model for the non-palatalised stem variant **nək-* in the preterite-subjunctive: in both languages, its initial is synchronically unpalatalised. Problems arise only when an alternative solution would need the initial of the *s*-present to have been depalatalised on the basis of the preterite-subjunctive: as far as I can see, there is no other possible source for a non-palatalising zero grade; neither in the Tocharian present-subjunctive system, nor in the Proto-Indo-European *s*-aorist. Why the preterite-subjunctive stem variant **ñək-* was adapted to the *s*-present stem variant **nək-* I do not know, but the merger of two phonetically close stems of a rigid verbal pattern is in itself plausible enough.

A problem on a different level is the distribution of the *s*-aorist stem forms **nēk-s-* and **nek-s-*. It is generally thought that the strong stem **nēk-s-* was at home in the strong stem domain of e.g. the athematic present and the root aorist, i.e. the active singular. The weak stem **nek-s-* must then have been found in the active plural and the middle and in derived forms. However, such a pattern is not directly attested: Vedic, for instance, has the reflex of **ē* throughout the active (also in the plural), and **e* in the middle. This dilemma was voiced already by Brugmann (1916: 394⁷⁸¹), and the discussion seems to be ongoing (LIV2: 20, for instance, assumes that the active plural had **e*, whereas Jasanoff 2003: 175, 205 opts for **ē*).⁷⁸² The reconstruction of the Proto-Indo-European *s*-aorist is not a task set for the present study. However, in view of the structural plausibility of the contrast singular **ē* : plural **e* and the possibility to derive a pattern active **ē* : middle **e* from it, I am of the opinion that the evidence from Tocharian presented here tips the scales in favour of the former.

⁷⁸¹ Frankly, only if we read "Vollstufe" for "Schwundstufe": "Dafür, dass im Indik. Plur. Du. ursprünglich die Schwundstufe geherrscht habe, ist demnach überhaupt kein sicherer Beweis zu erbringen, wenn es auch an sich als sehr wahrscheinlich zu bezeichnen ist."

⁷⁸² For Kortlandt's theory that *ē*-grade was original only in monosyllabic forms, namely the 2sg. and 3sg. injunctive (**nēk-s-s*, **nēk-s-t*), see 4.5.9 below (p 427).

4.5.4 -S- AND -SA-

As Kortlandt has pointed out (1994: 61, 62), the -s- of the s-aorist has been preserved in three archaic s-preterites formed to roots in a vowel: TA *kñas-* ‘know’, TA *cas-* and TB *tes-* ‘put’ and TA *wās-* and TB *wəs-* ‘give’. On the one hand, these verbs prove that the -s- was really there at a certain stage; on the other, they suggest that it was found in all person-numbers, not just in the third singular.

If the ə|Ø-root subjunctive is derived from an s-aorist, the obvious question is how the -s- could disappear; likewise, the rise of the *sa*-suffix in the corresponding preterite needs to be explained. In my understanding, the ə|Ø-root subjunctive is a category with the regular present-subjunctive endings, and the s-preterite is a category with the regular preterite endings. Thus, with Kortlandt (1994), I see no need to explain how the -s- disappeared in all individual forms: after it was lost in some key forms, the s-less stem form could have been generalised if in the remaining forms the s was still analysed as a part of the stem, or the normal endings could have been generalised if in the remaining forms the s had become analysed as a part of the ending. As a consequence, I disagree with Ringe (1990) in his basic approach, but I will start from his detailed discussion of the different possibilities of s-loss.

On the basis of Tocharian A *šāk* ‘6’ < **sueks*, Kortlandt supposes that word-final obstruents were lost, which must have resulted in forms like **prēk* < **prēk-s-t* (1994: 61). He further argues that s was lost in interconsonantal position, as in *tk*-roots from **-T-sk-* (1994: 62-63). While the first observation is certainly correct, the second is imprecise: it does not follow from the sound law **tsk* > **tk* (Melchert 1977, Pinault 2006) that **kst* became **kt*, for instance. Indeed, Ringe rather argues for an outcome **kast* with ə-epenthesis, as in TA *škäšt*, TB *škaste* ‘6th’ from **sueksto-* (1990: 193). Although numerals, both cardinals and ordinals, are certainly liable to heavy mutual influence, the s in the Tocharian ordinal *škaste* must be relatively old: the restoration of **šək* to *škas* in Tocharian B not only shows that there was an s in the ordinal, but also that the analysis was **skəs-te*, not **skə-ste*. Ringe assumes two other sound laws without direct parallels, but probable in themselves: **ksm* > **km* (p 195) and **ksr* > **kr* (p 205). In view of Kortlandt’s condition “interconsonantal”, we may assume that he would agree on these sound laws, too. Although it is disturbing that good parallels are lacking for the last two sound laws, the pattern is not difficult to grasp: s-clusters were extremely vulnerable, and they were reduced (e.g. *tsk* > *tk*) unless they were resolved with ə-epenthesis (e.g. *kst* > *kast*).

Assuming that the difference between the subjunctive and the preterite predates the loss of -s-, the loss of word-final obstruents would have yielded the following active forms without -s-: 2sg.sbj. **prek* < **prēk-s-s*, 3sg.sbj. **prek* < **prēk-s-t*. ə-epenthesis would have affected at least the 2pl.sbj. **prəkəs-cə* < **prēk-s-te* and the 2sg.prt. **prekasta* < **prēk-s-th₂*. As noted by Ringe (1990: 207-208), the 2pl.prt. could have lost its stem -s- if the ending was **-sə*.

Up to this point I have not worked with unparallelled sound laws, but if in addition Ringe’s **ksm* > *km* is correct, the s was also lost in the 1pl.sbj. **prəkmə* <

**prēk-s-mes*, the 1pl.prt. **prekmə* < **prēk-s-mes*, and possibly in the 1sg.sbj. **prekm(ə)* < **prēk-s-mi* (if the *s* was lost before *mi* became *m*: synchronically, the reflexes of **mes* > *mə* and **mi* > *m* are different). In fact, a possible parallel for the sound law **ksm* > *km* proposed by Ringe has been adduced by Schmidt (1978: 154), who compares the plural pronoun suffix Tocharian A *-m*, Tocharian B *-me* with Hittite *-šmaš* with the remark, “*-s- könnte wohl in Konsonantengruppen ausgedrängt worden sein”. Although I have my doubts on the probability of a development 3pl.prt. **prēk-s-r* > **prekər* (even if the ending was *rə*), it is hard to exclude that the *s* was lost there, too.

In the active, the following forms must at first have kept their *-s-*: 1pl.sbj. **praksən* < **prēk-s-nt*, 1sg.prt. **preksəwa* < **prēk-s-u-h₂*. The only form for which we have concrete evidence that the *-s-* was ultimately preserved is the 3sg.prt. **preksa*. The prehistory of this form is discussed below, but it is clearly made up of the *-s-*, which must have been preserved at a certain stage, and the ubiquitous preterite marker *-a-*.

Schematically:

subjunctive		preterite	
probable loss of -s-			
2sg. * <i>prek</i>	< * <i>prēk-s-s</i>	2pl. * <i>prekəs</i>	< * <i>prēk-s- + sə</i>
3sg. * <i>prek</i>	< * <i>prēk-s-t</i>		
possible resegmentation			
2pl. * <i>prakəs-cə</i>	< * <i>prēk-s-te</i>	2sg. * <i>prekəsta</i>	< * <i>prēk-s-th₂</i>
possible loss of -s-			
1sg. * <i>prekm(ə)</i>	< * <i>prēk-s-mi</i>	1pl. * <i>prekmə</i>	< * <i>prēk-s-mes</i>
1pl. * <i>prakmə</i>	< * <i>prēk-s-mes</i>	3pl. * <i>prekər</i>	< * <i>prēk-s-r</i>
probable preservation of -s-			
3pl. * <i>praksən</i>	< * <i>prēk-s-nt</i>	1sg. * <i>preksəwa</i>	< * <i>prēk-s-u-h₂</i>
		3sg. * <i>preksa</i>	< * <i>prēk-s- + a</i>

From these forms, the attested stems can be derived in a relatively straightforward way. The subjunctive singular is the easiest, and the rise of the “athematic subjunctive” may have started there. After the 2sg. and the 3sg. had become **prek*, the only analogy required was removal of the *-s-* in the 1sg.; in the course of time, the 2sg. received its historical ending *-t*, whereas the 3sg. was furnished with *-š* in Tocharian A and *-n* in Tocharian B. If *-s-* was indeed lost in the 1pl., the subjunctive plural may have lost its *-s-* through similar levelling of the *-s-* in the 3pl.; although it is by far the strongest plural form, the *-s-* may well have been ousted by the two other plural forms, aided by the singular. If the *-s-* was not lost in the 1pl., I see no other way out than to assume that the *s*-less stem spread from the singular. This kind of levelling is natural enough, but the delicate detail is that the gradation should have been preserved. As gradation was a frequent and productive morphological marker, this must have been possible: the *-s-* in the plural could have been felt to be more irregular than the gradation.

In the preterite, the strong 3sg. must have become marginalised formally because it had obtained the suffix *-sa-*. Once the 3sg. was no longer part of the paradigm, the 1sg. **preksəwa* was probably lined up with the 2sg. to become **prekəwa*; subsequently, the only possible analysis of the 3sg. was **prek-sa* (as it is to be analysed synchronically in both languages). The explanation of the preterite plural not only depends on the proposed sound laws **k̄sm > *km* and **k̄sr > *kr*, but also on deeper questions of reconstruction. If the preterite was grading, too, we would probably expect that gradation to have been preserved if the *-s-* was lost by sound law in all three forms. If on the other hand, the plural stem was just taken over from the singular, a phonological explanation of the loss of *-s-* is not necessary, and any information about the original root grade is lost. On this matter, see the discussion of the gradation pattern (4.5.3, p 408).

The problem with the 3sg. in *-sa* is that we would rather expect the regular stem with a zero ending, i.e. ***prek* rather than *preksa*. The 3sg. suffix *-sa* obviously contains the preterite marker *-a*, and the basis must have been a form **preks*. The simplest scenario seems to be the following. First, the 3sg.pf. ending **-e* became *Ø* after *-a*, the most frequent stem-final element in the preterite (see 4.2.2, p 347). This *Ø*-ending may have replaced any preform of the 3sg. of the *s*-preterite, but at a stage when the *s* was still found in e.g. the 1sg. **preksəwa* and the 2sg. **preksta* or **prekəsta*, the result being **preks-Ø*. At a later stage, this zero ending was apparently deemed insufficiently characterised and extended with the preterite marker *-a*, a development that may have been favoured by the presence of *-a* in the 1sg. and 2sg. endings. Alternatively, it is possible that *-sa-* replaces the regular outcome of **prēk-s-e* with an original non-zero ending. Perhaps the resulting **preks'ə* was analogically depalatalised to become **preksə*, which then received the preterite marker *-a*.

As the middle paradigm is formed from the secondary stem in *-sa-*, the loss of *-s-* there does not need to be explained. The *s*-less middle is altogether a different matter, since it not only lacks the *-s-*, but it is also formed from a different stem with *e*-grade. On this formation, see 4.8.3 (p 476).

4.5.5 ACCENT

One of Winter's arguments to derive the Tocharian grading subjunctive from the Proto-Indo-European perfect was the initial accent of the former in Tocharian B, which would be an indirect reflex of the reduplication of the latter. The development would have been approximately as follows:

**pe-prok-e > *p̄a-preśa >> *p̄a-prekə > [ACCENT ASSIGNMENT] *p̄a-prékə > [LOSS OF REDUPLICATION] *prékə > TA prakä-š, TB prekä-m '(s)he will ask'*

While I think that the explanation of initial accent from older reduplication is possible in itself – a good case is presented by the causative preterites discussed in 4.4.6 (p 398) it is in my view not correctly applied here.

My criticism is aimed at two main points: 1) Winter's theory breaks down the obvious parallels between subjunctive and preterite, and 2) it proceeds from the untenable basic assumption that Tocharian went through a stage with fixed second syllable stress. The first point is based on arguments laid down in detail in a.o. 4.5.2 (p 407) and 4.6.2 (p 431), and need not be dwelled upon here. The gist is that if the subjunctive has initial accent because of earlier perfect reduplication, it cannot derive from the same source as the preterite, since the preterite has no initial accent.⁷⁸³ The second point will be elaborated below.

As explained in 2.5.7 (p 85), accent is only detectable in Tocharian B. It may be difficult to assess because it is not written itself, but reflected in the spelling of the vowels /ə/ and /a/. Further, there are accent movements within paradigms that are commonly derived from a fixed (columnar) accent with a one syllable regressive shift (i.e. to the "left") from certain final syllables (this theory has been worked out in detail by Marggraf 1970, a student of Winter's⁷⁸⁴). At first sight, this formulation is not evident: most accent movements within paradigms allow both for a system with regressive shifts and for a system with progressive shifts. If we take a basic example of accent movement, 1sg.prt. *takāwa* /takāwa/ 'I was' vs 3sg.prt. *tāka* /tāka/ '(s)he was', we could either say that the accent is shifted backward (to the left) in *tāka*, or that it was shifted forward in *takāwa*. While both formulations are natural enough, hard proof to give priority to the regressive shift is scarce; both would account for the general observation of Krause (1952: 10):

"Der Akzent der westtochar. Wörter scheint normalerweise auf der ersten Silbe zu ruhen, sofern das betr. Wort ein- oder zweisilbig ist, auf der zweiten Silbe dagegen, wenn es dreisilbig, meist auch, wenn es vier- oder fünfsilbig ist".⁷⁸⁵

Regressive shift (to the left) instead of progressive shift is suggested by the contrast between e.g. 3sg.sbj. *takam* '(s)he will be' and 3sg.sbj.-3sg.suff. *takam-ne* '(s)he will have' vs 3sg.prt. *tāka* '(s)he was' and 3sg.prt.-3sg.suff. *takā-ne* '(s)he had': whereas the preterite allows for a progressive shift (to the right) interpretation, the subjunctive does not because the accent is not shifted forward in the form with suffix. From the

⁷⁸³ Acknowledging this problem, Winter unconvincingly suggests that the preterite goes back to the perfect indeed, but with the accent of the aorist (1994a: 306).

⁷⁸⁴ Marggraf's formulation of the condition for the backward shift is: "Der Akzent steht auf der letzten Silbe eines Wortes nur dann, wenn diese nicht auf einen Vokal auslautet, selten, wenn der auslautende Konsonant *l, r* oder Anusvara (*ṃ*) ist." (1970: 16).

⁷⁸⁵ As Winter observed earlier, this formulation invites the conclusion that Tocharian B had automatic stress on the penultimate syllable (1970: 95). As mentioned further below, he later changed his view, arguing that the accent was automatically fixed on the second syllable.

nominal domain, one could adduce for example the gen.pl. suffix {-ntʰə}, which “attracts” the accent in e.g. *ñäkteṃts* /ñäkténtʰ/ vs nom.sg. *ñäkte* {ñäkte/ ‘god, lord’, but not in *pälskontaṃts* /pälskóntantʰ/ vs (nom.-obl.)pl. *pälskonta* /pälskónta/ ‘thoughts’. Further indications are contrasts of the type *šamāne* /šamāne/ ‘monk’ vs *brāhmaṇe* /brāhmaṇe/, which show that accent placement was not automatic. However, the accent type of *brāhmaṇe* is exceedingly rare and it is certainly no coincidence that it is a recent loanword: witness the loan phonemes /b/, /h/ and /ŋ/. Historically, the initial accent is certainly due to the long *ā* of Skt. *brāhmaṇa*, if the long <ā> of Tocharian B is not even another loan phoneme /ā/.

In spite of the relatively good descriptive value of Marggraf’s regressive shift (to the left) representation, it has internal problems. In particular, it cannot capture the variation between 3sg.prs. *āśām* /áśən/ ‘(s)he leads’ and 3pl.prs. *ākem* /áken/ ‘they lead’, 3sg.prs.-pl.suff. *aśan-me* /aśánme/ ‘(s)he leads them’ and 3pl.prs.-3sg.suff. *aken-ne* /akénne/ ‘they lead him/ her’ and 3sg.prs.mid. *āštār* /áštər/, which is regular in ‘ə/e-presents. As pointed out by Marggraf (1970: 21), the active forms can be explained from a stem {a^{śs}/k^é-}, with “unshifted” accent in *aśan-me* and *aken-ne* and “shifted” accent in *āśām* and *ākem*, but the middle 3sg. *āštār* cannot: {aśá-tr} or the like simply does not yield the attested form.

While the correct approach was already given by Marggraf (l.c.), Winter has tried to patch this defect with a rule that deletes “underlying accented “shwa” before dental” (1993: 197). The problem with this rule is that it is phonologically implausible, synchronically as well as diachronically. When applied to such rare 3sg.prt. forms as *otkasa-me* B366b5 /otkásame/ {(w)otk-sa-Ø-me} ‘(s)he decided for them’ and *yonmasa* B29a3 /yonmása/ {yonm-sa-Ø} ‘(s)he obtained’, it even invites the conclusion that the shwa could remain because “it appears that a deletion would have resulted in a three-consonant cluster with two first elements that could not occur in syllable-final position” (1993: 200). The obvious rationale is that the accented shwa was not deleted before dental in forms like 3sg. *neksa* {nek-sa-Ø} ‘(s)he destroyed’, but epenthesised in the longer forms to resolve the difficult clusters -tks- and -nms-, respectively. The historical reversal of Winter’s rule implies a progressive accent shift to explain inner-paradigmatic accent movements, which is exactly what Marggraf had argued for.

From the initial accent of the type *āštār* Marggraf concluded: “Der Akzentwechsel im thematischen Präsens läßt sich [...] nicht nach einer Regel auf der phonologischen Ebene erklären” (1970: 21). In other words, within the framework of his theory of the Tocharian B accent, such forms are simply irregular. He did not just frankly admit this, he also offered a simple historical explanation: the accent was originally fixed on the root, as in *āśām* and *ākem*, but shifted forward (to the right) when another syllable followed, as in *aśan-me*, *aken-ne*. For the type *āštār* he assumed syncope just like Winter would do more than twenty years later, but he noted: “Die Akzentverlagerung von der Wurzelsilbe auf das Stammsuffix ist jünger als die Synkopierung des /ə/ in offener Silbe” (p 21). An additional argument for the early syncope of the ə of ‘ə/e-presents is the variant *s* before *t* of the ə-variant suffix

{-ssə/ske-} (see 2.5.1, p 54): *k' was dropped in the cluster *sk't only after syncope had taken place (but before s was affected by palatalisation!, see Couvreur 1947: 63⁷⁸⁶), i.e. *sk'ət > *sk't > *st.⁷⁸⁷

To sum up, while Marggraf's regressive shift (to the left) theory is to be preferred on the synchronic level, it cannot be used as a diachronic explanation. Rather, exceptions indicate that historically a progressive shift took place. This historical reversal has the additional advantage that it offers an explanation for the rise of the accentual system as such. Conversely, Winter's view that the accent was in principle always fixed on the second syllable (1994a: 306) not only needs the assumption of a cross-linguistically rare stress pattern (cf Hyman 1977: 41, 61; Goedemans forth.), it also leaves the development of this pattern from Proto-Indo-European mobile stress unexplained. Possibly, the change of a progressive shift analysis to a regressive shift analysis was "sprachwirklich" to a certain extent, i.e. for some forms or for some speakers: the key forms must have been exactly those that now require a regressive shift analysis.

Now that it has become clear that salient initial stress patterns need not reflect earlier reduplication, it is time to take a look at the accent contrast between subjunctive and preterite stem to see if an alternative explanation can be found. In my view, the ultimate origin of the accent contrast may be very simple: the active present endings generally do not enlarge the number of syllables of the word, whereas most others add a syllable.

	no extra syllable	one extra syllable
present active	1sg. -w, 3sg. -n, 3pl. -n	2sg. -tə, 1pl. -mə, 2pl. -cer
present middle		1sg. -mar, 2sg. -tar, 3sg. -tər, 1pl. -mtər, 2pl. -tər, 3pl. -ntər
preterite	3sg.act. -Ø	1sg.act. -wa, 2sg.act. -sta, 1pl.act. -mə, 2pl.act. -sə, ⁷⁸⁸ 3pl.act. -r(e), 1sg.mid. -may, 2sg.mid. -tay, 3sg.mid. -te, 1pl.mid. -mte, 2pl.mid. -tə?, ⁷⁸⁹ 3pl.mid. -nte

⁷⁸⁶ Couvreur's simple account is to be preferred over Winter's (1994a: 290).

⁷⁸⁷ Evidently, the view taken here is incompatible with the complicated scenarios developed by Ringe (1987b, 2003).

⁷⁸⁸ Pace Winter (1993: 201), *lautso* B431b2 can hardly be a 2pl. preterite: apart from the unexpected accent, the unpalatalised initial suggests that it is an imperative form instead, certainly compared to 3pl.prt. *lyautar* 'they drove away' in the same line. I translate (*awā*)*sikem pāst lyautar tumem caiy pālskāre wes yes lautso weś* [b₃] 'they drove away the āvāsikas. Then they thought, «Let us drive you away! ...»'. It is not clear how *wes* should fit into the sentence if *lautso* was a preterite.

⁷⁸⁹ This ending is so rare that its accent behaviour cannot be established. For instance, *yamaṣat* B35a3 'you have made' is not diagnostic because the accent is fixed on the middle syllable of the stem: {yamóṣṣa-}.

If we assume that the seat of the accent was originally determined by the number of syllables, namely on the first syllable of disyllabic and on the second of trisyllabic words, it is clear that the majority of the forms would have received suffix (medial) accent, except for the 3sg.prt.act., which has no medial accent in historical Tocharian B, and the strong third person forms of the present active. Subsequently, fixed stress must have been introduced, possibly to disambiguate a form like 1pl. (sbj.&prt.) **takámə*; the initial accent of the eventual 1pl.sbj. *tākam* < **takámə* could of course easily be taken over from 1sg. *tākaw*, 3sg., 3pl. **tākan*. Possibly only after all person-numbers of the subjunctive had received initial accent, it must have come to cover also forms with a suffix such as *tākaṃ-ne* ‘(s)he will have’, in my view from earlier **takán-ne*.

Admittedly, the number of ambiguous forms of the type 1pl. (sbj.&prt.) **takámə* must have been relatively small, and I would welcome additional forms motivating the shift of mobile and phonologically induced accent into fixed and morphologically organised accent. It is possible that this shift was favoured not just by completely ambiguous forms, but that the contrast between the subjunctive and preterite was further enlarged. In a nutshell, this is exactly how the morphological system works synchronically: there are many different types of marking that all make their little contribution to important contrasts, but often combined with other types of marking. In any case, this assumption explains why the accent was not fixed on the root in ³/_e-formations: these never had an identical preterite stem next to them.

Perhaps unnecessarily, I would like to emphasise that the account of the Tocharian B accent outlined above – we may term it “Marggraf’s theory” – is more economical than Winter’s theory. As already remarked, it explains how the fixed accent could derive from earlier mobile accent, whereas Winter’s fixed accent is an ad hoc introduction into the development of Tocharian. It is further economical in that it remains closer to the actually attested forms. Winter needed to derive a form like *palsko* /pǎlsko/ {pǎlskó-Ø} from an earlier **pǎlskó*, whereas in Marggraf’s view *palsko* reflects just **pǎlsko*. For forms with the accent to the right (“unshifted” synchronically, “shifted” historically) there is no difference, as both would derive *pǎlskonta* /pǎlskónta/ from **pǎlskónta*.

Whereas the accent contrast between the x|a-root preterite and subjunctive stems is explained straightforwardly with the above account, the complicated accent of the s-preterite needs an additional comment. If we concentrate on the root forms, that is, those without -sa-, there is only one disyllabic form with a deviating accent: the 3pl., e.g. *prekar* /prekár/. This form can of course without any problem be secondary after regular 1sg. *prekuwa* /prekówa/, 2sg. *prekasta** /prekástal/, 1pl. *prekam** /prekám/ {prekámə}, 2pl. *prekas** /prekás/ {prekásə} (on Ringe’s reconstruction **-rə* to account for the final accent, see 4.2.2, p 347). With the 3sg.act. *preksa* /préksa/ nothing is wrong either: it has the only accent it could possibly have. The only additional assumption we need is that longer forms with the element *preksa-*, e.g. *preksa-ne* /préksane/ ‘(s)he asked him/ her’ or 3pl.mid. *parksaṃ-ne* /párksantene/ ‘they asked him/ her’ took over the accent of the unsuffixed 3sg. instead of the ex-

pected phonologically regular mobile accent. In itself, this assumption is not far-reaching, as the whole middle must have been built on the 3sg. active (see the preceding section, 4.5.4, p 411). Also in this respect, Marggraf's theory is simpler than that of Winter: the derivation of *preksa* from an earlier **prekása* is not only implausible, it offers no explanation whatsoever for the suffixed form *preksa-ne* /préksane/, which would have to derive from something like **preká-sa-ne* with a highly remarkable shift of the accent. In addition, the *s*-preterite middles *tässāte* '(s)he put' and *wässāte* '(s)he wore' are likely to be archaic because they are isolated; their deviant suffix accent is regular within Marggraf's approach, but for Winter they "show the effects of a very early reduction" of *sās* to *ss* (1993: 201) that is unmotivated otherwise.

As Marggraf noted, there are some *s*-preterites to *a|Ø*-roots without fixed initial accent (1970: 33-34), for which Winter simply assumed "Konjunktive' ohne Stammabstufung sind in der Regel als reduplikationslos zu identifizieren" (1994a: 307). In as far as the assumption of the lack of reduplication cannot be supported independently, this explanation is evidently circular; it invites the question, for instance, why non-grading *a|a*-root subjunctives do exhibit fixed initial accent. While the examples given by Marggraf (l.c.) and Winter (l.c.) are in themselves correct, the rule is in need of correction: {ay-'} 'give', {awn-'} 'hit', {yam-'} 'do' and {yok-'} 'drink' have suffix accent, but stems like {nák-} 'reproach', {pyák-} 'smash' and {plák-} have root accent. In my view, the stems without fixed initial accent are archaic and have just not morphologised the accent contrast regularly found in other subjunctives. For three of these verbs, the explanation is straightforward: they are highly irregular and even without an accent contrast, the subjunctive stems are sufficiently distinct from the corresponding preterites, cf {wəsa-} 'give', {yamássa-} 'do' and {ya^{sa}/ke-} 'drink'. For *awn-*, the explanation may be that this verb has two quite different meanings, 'hit' in the active and 'begin' in the middle, which made it possible that the original – phonologically regular – suffix accent in the subjunctive middle forms was kept.

There is one more problem of the accent that has received little attention. As is well known, intransitive *e*- and *o*-presents are in complementary distribution: *e*-presents are formed to *ə|a*-roots and *o*-presents to *a|a*-roots. Both types form a root subjunctive. In the *ə|a*-type of the *e*-present, the accent is always on the suffix, whereas it is always on the root in the *a|a*-type of the *o*-present, i.e. inf. *triwātsi* 'to mix' with *ə* in the root and medial accent vs inf. *kārpatsi* 'to descend' with *a* in the root and initial accent. Obviously, both are subjunctives and both are intransitive, so that the difference cannot have been caused by absence of reduplication in the preform of *triwātsi* and presence of reduplication in the preform of *kārpatsi*, nor by a contrast between transitive with initial accent vs intransitive with medial accent, as argued for by Winter (1980a, e.g. 439-440).

Within the framework of Marggraf's theory as elaborated above, the accent of the type *triwātsi* is regular because the class was completely middle in the present, and predominantly middle in the subjunctive: there were only trisyllabic and no disyll-

labic forms. Thus, the accent of the type *kārpatsi* needs to be explained. Obviously, *kārpatsi* was adapted to the frequent subjunctive type with initial accent because that is the only similar type. In itself, this requires no special argument because the contrast sbj. {kārpa-} vs prt {karpá-} perfectly fits the frequent type sbj. {táka-} vs prt. {taká-}. The question is rather why the type *triwātsi* could retain an accent that was regular (phonologically) at an earlier stage but had become irregular (morphologically) when most other subjunctives had received initial accent.

To my knowledge, the relevant differences between the two types are the vowel in the root and the fact that there are many more active subjunctive forms in the *kārpatsi*-type. The latter difference in particular may have favoured the accent shift in the *kārpatsi*-type: as it has a much larger number of medio-actives than the *triwātsi*-type, there were many more active subjunctive forms where the initial accent was phonologically regular. As far as the root vowel is concerned, I assume that full grade became associated with initial accent, perhaps when at an intermediate stage the subjunctive active had regularised initial accent, e.g. **térka-* ~ **tárka-*, but the middle still had the old medial accent, e.g. **tarká-*. This explains at once the exceptions to the generalisation that *e*-presents combine with subjunctives with medial accent, cf the *e*-presents 3sg.prs. *mārsetār* '(s)he forgets' and 3sg.prs. *sruketār* '(s)he dies', the grading subjunctives 3sg.sbj. *mārsam* '(s)he will forget' and 3sg.sbj. *sraukam* '(s)he will die', and the initial accent of the subjunctive stem as in inf. *mārsatsi* /mārsatʰəy/ 'to forget' and *srukatsi** /srōwkatʰəy/ 'to die' (well attested is vn *srūkalñe* /srōwkalñe/ 'death').

4.5.6 THE S-PRESENT

For the explanation of the *s*-present I follow a scenario developed by Couvreur (1947: 62-63), which takes them as originally dissimilated from *sk*-presents after root-final stops. Although this scenario works with a considerable amount of prehistoric developments that are not directly verifiable, it is clearly preferable to the alternatives that have been proposed.

The derivation from an *s*-aorist subjunctive as proposed by Jasanoff and Pinault is fine phonologically, if the lack of initial palatalisation can be explained. However, it fails on the semantics: there is no affiliation whatsoever between the meaning of the Tocharian present on the one hand and the Proto-Indo-European aorist on the other, nor between that of the Tocharian present and the Proto-Indo-European subjunctive.

The derivation from a desiderative, as discussed on several occasions by Hackstein (e.g. 1995: 160), but eventually rejected because of the lack of initial palatalisation, has to cope with the same problems: there is no desiderative component in the meaning of the Tocharian present. It rather seems that in many cases the *s*-present has explicit present meaning, as it appears to push other formations away to the Tocharian subjunctive; compare in particular the case of the original present **tatta-*

‘put’, which was functionally shifted to become a subjunctive because of the *s*-present **tasʷ/e-* (see 4.3.2, p 357).

Kortlandt’s derivation from a Proto-Indo-European *s*-present (e.g. 1994: 63-64) is functionally fine, but his reconstruction with an athematic *s*-suffix⁷⁹⁰ is not supported by the Tocharian material. Moreover, a derivation of the Tocharian *s*-present from a Proto-Indo-European athematic *s*-present does not explain much, since the Tocharian *s*-present is in the end derived from an *s*-present, while the characteristic athematic inflexion would have to be lost in favour of the Tocharian *ʷ/e*-inflexion.

Couvreur’s solution to derive the *s*-present from the *sk*-present is rather simple, but it is not easy to find in his *Hoofdzaken*: not only because it is in Dutch (cf the English summary 1947: 99), but also because it is formulated in a very concise way. In addition, *s*- and *sk*-presents are discussed together under their old class number 9 (see footnote 3), whereas nowadays *s*-presents (TEB class 8) and *sk*-presents (TEB class 9) are usually treated separately.

“*ske/o*-presents (class IX). The formant is *-s-* (before IE *o*) and *-ʃ-* (before IE *e*) in [Tocharian] A, [and] in [Tocharian] B [it is] *-sk-* (before IE *o*) next to *-ʃʃ-* (before IE *e*) after vowel stems and similarly *-s-* next to *-ʃ-* predominantly (31 out of 36 instances) after consonant stems. In the second case, an original *-sk-* in B has been reduced to *-s-* after a consonant (often *k*).” (1947: 62, translation mine)⁷⁹¹

Couvreur makes two claims about the distribution of the *s*- and *sk*-presents, namely that the former are found after consonant stems and the latter after vowel stems. If these claims are correct, the two types were originally in complementary distribution, which in turn suggests that they go back to one single type. I will first contrast Couvreur’s argument with the material to see whether it can be substantiated with concrete examples, and then I will adduce additional arguments for his theory.

Couvreur’s claim that *s*-presents are predominantly found with verbs ending a root-final consonant can easily be shown to be correct: with 24 instances, root-final *-k* is clearly overrepresented, with an additional 5 for root-final *-p*. The complete lack of verbs with root-final *-t* is conspicuous, but this, too, receives a meaningful interpretation with Couvreur’s theory: in view of the development of **-T-skʷ/o-* to *-tk-* (Melchert 1977), we would expect not to find roots in *-t* among *s*-presents if they go back to *sk*-presents. However, if they go back to some sort of *s*-formation, there is no reason why *-t* should be absent.

With root-final stops we find:

- k*: *tānkʷ/se-* ‘stop’, *trāykʷ/se-* ‘err’, *nakʷ/se-* ‘criticise’, *nəkʷ/se-* ‘destroy; perish’, *pākʷ/se-* ‘boil, ripen’, *palkʷ/se-* ‘burn’, *prekʷ/se-* ‘ask’, *prāwkʷ/se-* ‘overlook’, *plakʷ/se-* ‘agree’, *plānkʷ/se-* ‘sell’, *yāwkʷ/se-* ‘overcome’, *rākʷ/se-* ‘cover’, *rānkʷ/se-* ‘rise; lift’, *lānkʷ/se-* ‘hang oneself on’, *lāykʷ/se-*, *laykʷ/se-* ‘wash’,

⁷⁹⁰ He continues the work of Pedersen (1921) and Kuiper (1934; 1937: 36-40).

⁷⁹¹ Likewise, though only for *prek-* ‘ask’, Klingenschmitt (1982: 62).

- lawk^{sə}/se-* ‘light up, illuminate’, *wak^{sə}/se-* ‘distinguish’, *wəyk^{sə}/se-* ‘avoid; keep away from’, *sak^{sə}/se-* ‘leave back [?]’, *t^sak^{sə}/se-* ‘shine’, *t^sək^{sə}/se-* ‘burn’, *t^sək^{sə}/se-* ‘take off; skin’, *t^sənk^{sə}/se-* ‘raise’, *t^səwk^{sə}/se-* ‘water’;
- p: *ayp^{sə}/se-* ‘cover’, *krəmp^{sə}/se-* ‘disturb, check’, *yərp^{sə}/se-* ‘respect’, *lawp^{sə}/se-*, ‘make, get dirty’, *šərp^{sə}/se-* ‘point out; explain’.

Although -k is overrepresented, the distribution is certainly not perfect, since we find also root-final resonants (1 x -n, 2 x -m, 2 x -r, 3 x -l) and vowels: once -a and four times -w (i.e., -u or a u-diphthong):

- n: *šan^{sə}/se-* ‘count’;
- m: *nəm^{sə}/se-* ‘bend’, *t^səm^{sə}/se-* ‘increase’;
- r: *ar^{sə}/se-* ‘abandon’, *er^{sə}/se-* ‘evoke’;
- l: *kəl^{sə}/se-* ‘bear (act.); goad (mid.)’, *məyl^{sə}/se-* ‘damage’, *yel^{sə}/se-* ‘examine’?;
- V: *kaw^{sə}/se-* ‘kill’, *kəw^{sə}/se-* ‘pour’, *ta^{sə}/se-* ‘put’, *pləw^{sə}/se-* ‘float’, *rəw^{sə}/se-* ‘open’.

For *ke^{sə}/se-* ‘extinguish’, we would expect an s-present for structural reasons (see 2.7.9, p 132), but the root must definitely be set up as *kəs-* (cf e.g. prt.ptc. *kekesu* with -s-), so that the only possible analysis is {kes-^ə/e-}. Probably an original s-present was obscured after the root-final -s: **kess^ə/e-* > **kes^ə/e-*.

The converse claim, namely that *sk*-presents are predominantly found after vowel stems, is not substantiated so easily. First of all, the *sk*-present type is less frequent and statistics are therefore less reliable, but roots in -k are relatively well represented in this category, too. However, the situation is markedly different from the s-present type: the majority of the roots ends in -n (6x). -k follows with 5 instances, -t, -y and -l with one each.

- n: *awnə^{ssə}/ske-* ‘hit (act.); start (mid.)’, *kənə^{ssə}/ske-* ‘come about’, *kləynə^{ssə}/ske-* ‘be necessary’, *rəynə^{ssə}/ske-* ‘give up; leave’, *saynə^{ssə}/ske-* ‘rest on’, *šəynə^{ssə}/ske-* ‘be depressed’;
- k: *enkə^{ssə}/ske-* ‘seize’, *kərkə^{ssə}/ske-* ‘bind’, *trenkə^{ssə}/ske-* ‘cling’, *lāytkə^{ssə}/ske-* ‘remove’, *sətkə^{ssə}/ske-* ‘extend’;
- t: *lāwtə^{ssə}/ske-* ‘remove; drive away’;
- y: *ay^{ssə}/ske-* ‘give (act.); take (mid.)’;
- l: *alə^{ssə}/ske-* ‘keep away’.

The unequal distribution of roots in -n is striking indeed, and strongly in favour of Couvreur’s theory.⁷⁹² As concerns the verbs in -k, the obvious question is whether those in the s-present group are somehow different from those in the *sk*-present group. The large s-present group is somewhat diverse, but the smaller *sk*-present group has one common feature: all roots end in -Ck. Indeed, out of 24 instances in

⁷⁹² That the *n* actually belonged to the root (as in Tocharian B) rather than to the suffix (as sometimes in Tocharian A) is argued in 4.8.2 (p 472).

the *s*-present group, only 6 do not end in a single *-k*: *tənk^{sə}/se-* ‘stop’, *pəlk^{sə}/se-* ‘burn’, *plənk^{sə}/se-* ‘sell’, *rənk^{sə}/se-* ‘rise; lift’, *lənk^{sə}/se-* ‘hang oneself on’, *tʰənk^{sə}/se-* ‘raise’.

If the distribution noticed above contains the key to a further specification of the sound law responsible for the rise of the *s*-presents, I would interpret it in the following way. Since single *-k* prevails before *s*, we can safely assume that *ksk* yielded *ks*. In view of the survival of *sk* after *k*-clusters, *sk* must have remained in some of them at least. Phonetically, the preservation of a larger cluster and the reduction of a smaller cluster was evidently caused by the insertion of an epenthetic vowel in the former. A priori, it is not strange to suppose that some *Cksk* were epenthesised and others were not, but with the few examples listed above, it is difficult to extract a distribution. As nasals are completely homorganic with a following *-k*, I would opt for *nksk* to have remained at first, so that it was later reduced to *nks*, whereas e.g. *tksk* could have become *tka^ssk*, where *sk* could stay. The predominance of *-nk* among the *s*-presents with *k*-clusters supports this hypothesis, but for the 5 *sk*-presents to roots in *-k* levelling must be assumed in any case.⁷⁹³

All in all, Couvreur’s dissimilation theory can be substantiated by the material, but several impurities in the distribution force us to assume that the sound change took place at an early stage, with a good deal of reshuffling afterwards.⁷⁹⁴ Admittedly, the partly imperfect distribution is a relatively weak point in Couvreur’s theory, but it explains several completely independent other matters. This greatly enhances its explanatory value, which is, in my view, decisive proof of its correctness. In addition to explaining the distribution between *s*-presents and *sk*-presents to *s*-preterites, it accounts for:

- the *s*-present as such, since in any historical account of the Tocharian verb *sk*-presents must play a major role;
- the fact that the *s*-present is a subtype of the *ʔ/e*-presents, since all *sk*-presents belong to that type;
- the lack of initial palatalisation in the *s*-present because Ø-grade was regular in *sk*-presents: in Proto-Indo-European and – as non-palatalising *ə*-grade – in Tocharian;
- the lack of *s*-presents to roots in *-t* because there the *sk*-present must have been reduced to *-k-*, yielding *tk*-roots (as noted above).

In relation to the *s*-preterite system, the theory has the following advantages:

⁷⁹³ In view of the instability of *sk*-clusters, I wonder whether the exceptional *e*-grade of TB {prek^{sə}/se-}, TA {prak^{sə}/sa-} could perhaps be due to mending when the cluster *rks* or even *rksk* yielded problems in the original present **parks(k)ʔ/e-* from **prk-skʔ/o-* (of course, this **prk-skʔ/o-* would have to be a restored form itself, as the **k* was probably lost in Proto-Indo-European, see LIV2: 490–491).

⁷⁹⁴ The derivation of *tk*-roots from roots in a dental followed by an *sk*-suffix (Melchert 1977), which has become generally accepted, works with a distribution that is often even worse.

- it explains why the *s*-present and the $\partial/\emptyset$ -root subjunctive are affiliated because root-final *-k* must have been a decisive factor in the rise of both categories: apparently *ks*-clusters were especially vulnerable;
- if Tocharian inherited an *s*-aorist with $*\tilde{e} : *e$ gradation in the root, the $\emptyset$ -grade of the *s(k)*-present may well have favoured the spread of non-palatalising ∂ -grade (as if from $*\emptyset$) at the expense of palatalising ∂ -grade (as if from $*e$);
- there is comparative evidence for at least some *sk*-presents next to *s*-aorists, though this was probably not the situation in early stages of Proto-Indo-European.

Some of these points need more detailed comments, others may seem obvious, but I will treat them all below.

As the *sk*-presents are ubiquitous in the Tocharian verbal system, any theory that incorporates this productive category is economical. Whatever the ultimate reasons for the spread of the *sk*-present, the fact that it spread is beyond doubt. Therefore, the derivation of the *s*-present from an *sk*-present has no need to explain the existence of such an *sk*-present, but only the distribution of the *s*-present subtype. Functionally, it has the great advantage that the *sk*-present really was a present, and nothing else; it was so presentic that it could easily have pushed older presents to neighbouring categories, for instance. There is no need to assume any kind of semantic development other than bleaching of the suffix to a general means to form presents.

It may seem evident that the Tocharian *s*-present is of the ∂/e -type, but for alternative explanations it is in fact a problem. The Proto-Indo-European *s*-present as set up by Pedersen (1921) and Kuiper (1934) was a consonant stem with a full grade *e* moving from the suffix to the ending, i.e. 3sg. $*tr-es-ti$, 3pl. $*tr-s-enti$. This *s*-present theory has been defended explicitly by Kortlandt on several occasions, and Melchert (2000: 146) evidently considers it worth investigating, too. Although one might claim that the addition of an element $-\partial/e-$ to such a suffix $-(e)s-$ is a trivial matter, ∂/e -presents are not at all frequent in Tocharian – unless *sk*-presents and their combinations are counted as well. In any case, the derivation of the Tocharian *s*-presents from a Proto-Indo-European *s*-present needs the unverifiable additional assumption that it was extended with an ∂/e -suffix. Other problems of the *s*-present theory are of course that, although the existence of an *s*-suffix seems ascertained, the exact age, function and distribution of this element remain obscure to a high degree.

The lack of initial palatalisation is only a minor point that could, I am convinced, have come about secondarily in many ways. Nevertheless, the fact that $\emptyset$ -grade in the root is normal for *sk*-presents makes the derivation of the *s*-present from an *sk*-present easier than from e.g. a desiderative with *e*-grade. The latter solution was discarded by Hackstein for exactly that reason.

There are several kinds of distribution “under the surface” of the verbal system; correlations, for instance, between inflexion classes and root types. The *s*-present has a lacuna for roots in *-t*, which is neatly explained if it goes back to an *sk*-present:

roots in *-t* would never have ended up among the *s*-presents because the *sk*-cluster was resolved differently, becoming *tk* (Melchert 1977).

The condition that *s*-presents arose after stops, in any case *-k*, provides a solution for the close link between *s*-presents and *ǵ|Ø*-root subjunctives, at least within the framework of the theory of Kortlandt that the latter arose after stops, principally *-k* (1994). Evidently, the match between the *s*-present and the *s*-preterite receives the same explanation; in this case, the conditioning factor *-k* was also argued for by Ringe (1990).

I subscribe to Jasanoff's criticism (2003: 181) of Hackstein's reluctance to accept palatalisation levelling (1995, e.g. 161; see also Penney 1998: 93-94) in e.g. the *s*-present; such levelling can be demonstrated to have taken place time and again in different categories, mostly – though not exclusively – at the expense of the palatalised variant. Thus, I attach relatively little weight to the advantage of a *Ø*-grade in the root which the *sk*-present theory offers over a derivation from an *e*-grade desiderative or an *s*-aorist subjunctive. Nevertheless, my own explanation of the *ǵ|Ø*-root subjunctive system requires (PIE) *Ø*-grade instead of **e*-grade in the weak form, and it is improbable that the Proto-Indo-European *s*-aorist had this *Ø*-grade in the active plural. The close link between the *s*-present and the *ǵ|Ø*-root subjunctive allows us to assume that the present was instrumental in the spread of the *Ø*-grade: it may have been the source of the levelling of unpalatalised initials, not the target.

In view of the overwhelming productivity of *sk*-presents at different stages of Tocharian, including early ones, I am of the opinion that comparative evidence for the derivation of the *s*-presents from *sk*-presents is not of utmost importance. Indeed, as most scholars view the Proto-Indo-European verbal system, primary presents combined with secondary aorists and secondary presents with primary aorists. The *s*-present ~ *ǵ|Ø*-root subjunctive system as it is reconstructed here, reflects a stage with a secondary present derived with the suffix **-sk^e/_o-* combined with a secondary aorist derived with the suffix **-s-*. Because such a pattern cannot be old, it is a priori not to be expected that one would find many perfect morphological matches outside Tocharian. Nevertheless, at least one archaic Tocharian verb, *prək-* 'ask' has cognates with *sk*-presents, a.o. Ved. *pr̥cchāti*, Arm. 3sg.aor. *eharc'*, Lat. *poscō* (see in particular Klingenschmitt 1982: 62).

Continuing this line of thought, I would like to stress that the theory of the *s*-present developed above accounts for a *pattern* in the Tocharian verb, for the *s*-present *system*. It is not an explanation for each and every individual Tocharian *s*-present, and such an explanation is not feasible. The Tocharian *s*-presents form a system that remained productive well into the historical period, and had been productive before. Therefore, the distribution over the root types is not perfect, comparative evidence is scarce, and, perhaps most importantly, the use of these Tocharian *s*-presents for comparative ends is severely limited.

4.5.7 NASK'ə/-PRESENTS

Although they are as class 10 treated together with *nask'ə/-*-presents in the *Elementarbuch* (Krause and Thomas 1960: 214), *nask'ə/-*-presents are fundamentally different. While *nask'ə/-*-presents are extremely rare in Tocharian B, three subcategories can be distinguished in Tocharian A. As one of the Tocharian A subcategories finds good correspondences in Tocharian B, this will be treated first; the remaining two are discussed further below.

In Tocharian B, there are three certain examples of *nəssə/ske-*-presents: {kənməssə/ske-} to *kəm-* ‘come’, {tənməssə/ske-} to *təm-* ‘be born’, and {yənməssə/ske-} to *yəp-* ‘enter’. As noted in 2.7.9 (p 135), it is conspicuous that all three show a root variant with *-m-* and metathesis of *-mn-* to *-nm-*. The only conclusion can be, so it seems, that the *nəssə/ske-*-suffix is preserved here *because* it caused irregularities. In the case of ‘be born’, there are even two analyses possible: on the evidence of the sbj. {cəmé-} and the prt. {tem^(O)/sa-}, the *n* is part of the present suffix, but on the evidence of the derived causative *tənm-*, it was rather part of the root. A fourth case that is often cited is similar to *təm-*: {lənnəssə/ske-} to *lət-* ‘go out’. Although the present clearly contains a nasal – two, to be precise – the sbj. {lənn-} shows that the present *suffix* is actually *-ssə/ske-* (see 4.3.5, p 368): the root *lənn-* of the present and the subjunctive is different from the root *lət-* of the preterite (the relation between the two roots is “irregular”).

While the verb for ‘enter’ is only imperfectly attested in Tocharian A, the other verbs show similar formations: {k^wämnä^{sä}/sa-} to *k^wäm-* ‘come’, {tämnä^{sä}/sa-} to *täm-* ‘be born’, and {läntä^{sä}/sa-} to *länt-* ‘go out’. On the evidence of the sbj. {läncä/a-}, the present of ‘go out’ is a *sä/sa-*-present rather than a *nä^{sä}/sa-*-present, but since the root clearly contains an extra nasal, the present must ultimately go back **lət-nask'ə/-* (see 4.3.5, p 368).

As argued in 4.3.1 (p 351), the *nask'ə/-*-present of **k^wäm-* ‘come’ can comfortably be derived from Proto-Indo-European **g^wm-ske/o-*. In view of the similarity in meaning between ‘come’, ‘go out’ and ‘enter’, it is attractive to assume that the *nask'ə/-*-suffix originated in ‘come’, spreading to the other verbs afterwards. If ‘be born’ is to be understood as ‘enter the world’ or ‘be born into the world’ (2.7.9, p 135), it can have received the suffix as a part of the same development.

The second subcategory where the suffix is found in Tocharian A is discussed in detail in 4.8.2 (p 472). In these verbs, there is a nasal in several stems, of which it is not always clear whether it belongs to the root or to a suffix. It is argued that the *-n-* was most probably part of the root in Proto-Tocharian, but it was lost in the *s-*-preterite of e.g. *räy-* ‘give up’: *risät* < **räynsät*. As a consequence, the *n* of the present and the subjunctive could be analysed as a part of the suffix, which led to the rise of the *nä^{sä}/a-*-subjunctive. This development was probably favoured by the existence of *nä^{sä}/sa-*-presents elsewhere, and of course it helped creating this small subcategory of *nä^{sä}/sa-*-presents, as the analysis of the present as *-n-sä/sa-* had become excluded.

The third Tocharian A subcategory of $näsä/_{sa}$ -presents is formed according to a rigid pattern: $näsä/_{sa}$ -present, *a*-subjunctive, *sä*-less preterite, e.g. prs. {*näk-näsä/_{sa}*-}, sbj. {*näka-*}, prt. {*nak-*} of *näk-* ‘perish’ (see also 4.8.3, p 476). The present is attested for {*näk-näsä/_{sa}*-} ‘perish’, {*päk-näsä/_{sa}*-} ‘boil’, {*wäl-(l)äsä/_{sa}*-} ‘die’, and {*täk-näsä/_{sa}*-} ‘burn (intr.)’. The root of *kän-* ‘come about’ contains a nasal itself, so that its present {*känäsä/_{sa}*-} can probably be analysed both as {*kän-sä/_{sa}*-} and as {*kän-näsä/_{sa}*-} (see 2.6.6, p 100). The present of {*käsa-*} ‘extinguish’ is not attested.

In view of the relatively small number of verbs in question, I assume that they took over the $näsä/_{sa}$ -suffix from *täm-* ‘be born’. In Tocharian B the *e*-subjunctive class shows little cracks, notably $sə/_{se}$ -presents for some members, namely {*nəkəsə/_{se}*-} ‘perish’, {*pəkəsə/_{se}*-} ‘boil’ and {*təkəsə/_{se}*-} ‘burn’, but $sšə/_{ske}$ -presents for others, namely {*kənəsšə/_{ske}*-} ‘come to be’, {*tənməsšə/_{ske}*-} ‘be born’, while {*keəsə/_{se}*-} to *kəs-* is probably out of line because the root ends in *-s* (see 4.7.3, p 458). Conversely, the same class in Tocharian A follows only one rigid pattern. Thus, I assume that Tocharian B preserves the older situation. If the distribution between $sə/_{se}$ -presents and $sšə/_{ske}$ -presents can be projected back to Proto-Tocharian (which is argued for in 4.5.6, p 419, above), it is likely that the $nəskə/_{e}$ -suffix spread to **kən-* at first – if that verb did not already allow both analyses – and to the other verbs when the *sk-* and *s-*presents merged altogether.

On TA *kłos-* ‘hear’ with its secondary present {*kłos-näsä/_{sa}*-}, see 4.7.2 (p 457).

4.5.8 HITTITE 3SG. *HI*-PRT. -š

With the derivation of the Tocharian *s*-preterite from a regular Proto-Indo-European *s*-aorist (following Kortlandt and Ringe, see above), the equation of the *-s* of the Tocharian A 3sg.prt. *campäs* ‘could’ with the *-š* of the Hittite 3sg. *hi*-prt. *akkiš* ‘died’ (Pedersen 1941: 146; Winter 1982: 9) is reduced to a typological parallel at best. Consequently, the 3sg. *hi*-preterite ending is no longer a problem of the comparative study of Tocharian and Hittite, but a matter to be dealt with in the reconstruction of Proto-Anatolian, or, for that matter, Proto-Indo-European. It is not of immediate concern to the study of the Tocharian subjunctive, nor to Tocharian studies as a whole. Nevertheless, a small note may be justified.

If we take a look at the *mi-* and *hi-* endings as posited by Kloekhorst (2008a: 498), it is not so much their differences that are striking, but rather the similarities, which betray thorough remodelling:

	<i>mi</i> -inflexion		<i>hi</i> -inflexion	
	present	preterite	present	preterite
1sg.	- <i>mi</i>	-(<i>n</i>) <i>un</i>	- <i>hhe</i> , - <i>hhi</i>	- <i>hhun</i>
2	- <i>ši</i>	- <i>š</i>	- <i>tti</i>	- <i>tta</i>
3	- <i>za</i> , - <i>zi</i>	- <i>t(ta)</i>	- <i>e</i> , - <i>i</i>	- <i>š</i>
1pl.	- <i>weni</i>	- <i>wen</i>	- <i>weni</i>	- <i>wen</i>
2	- <i>tteni</i>	- <i>tten</i>	- <i>šteni</i>	- <i>šten</i>
3	- <i>anzi</i>	- <i>er</i>	- <i>anzi</i>	- <i>er</i>

Whereas, as commonly agreed, the contrast between present endings with *-i* and preterite endings without *-i* is a direct continuation of the proto-language in the *mi*-endings, it is secondary in the *hi*-endings. In other words, the difference between *hi*-present and *hi*-preterite seems to be modelled after the same difference in the *mi*-inflexion. Indeed, the only two endings where the difference between *hi*-present and *hi*-preterite is not expressed by the *i*-element are the 3sg. and the 3pl. Of these, the latter cannot possibly continue an old contrast between present and preterite, as the present ending *-anzi* clearly goes back to the PIE present ending **-nti* and the preterite ending *-er* to the PIE perfect ending **-ēr*. The only *hi*-ending remaining, then, with a “serious” difference between present and preterite is exactly our 3sg. *-š*.

As argued by Kloekhorst (2008b: 688), the expected 3sg. *hi*-ending without *i* is zero: the Proto-Indo-European perfect ending **-e* would have been apocopated. Therefore, he concludes, the ending must have been restored in one way or another and as a source he proposes the *s*-aorist, otherwise largely lost.

Thus, the Tocharian and Hittite 3sg. *s*-endings cannot be compared directly. The Hittite ending *-š* is a secondary creation to enlarge the formal contrast between the *hi*-present and the *hi*-preterite, which is secondary itself.

4.5.9 1SG. PRETERITE

The stem shape of the vast majority of the 1sg. preterite forms in both languages is not different from that of other forms of the *s*-preterite paradigm. Tocharian A differs from Tocharian B in having initial palatalisation if possible, but in both languages there are no stem changes within the active paradigm: in Tocharian A we find *a*-grade throughout, e.g. *ñak-*, and in Tocharian B *e*-grade, e.g. *nek-*. There are two exceptions: the 1sg. *kamau* ‘I came’ in Tocharian B and relic *u*-forms in Tocharian A.

The evidence of *kamau* is in itself very clear, but uncertain for a couple of reasons. It is clear because there is no competing form in the same paradigm and the stem variant *kəm-* is also attested in the plural (2.5.2, p 56, 4.3.1, p 351). It is uncertain because *kamau* is by no means a “normal” *s*-preterite form, because it is not well attested, and because it could be secondary. As I have argued above (4.3.1, p 351), the preterite of ‘come’ is perhaps best analysed as an *s*-preterite, but it must have replaced a Proto-Indo-European root aorist and it was itself replaced by an *’ə/e-*

preterite, so that it is a very untypical *s*-preterite. Although the preterite paradigm of ‘come’ is well known for the other forms, it is exactly the 1sg. that is attested only once in a small fragment which makes the mere existence of the form less certain. If *kamau* is a genuine form indeed, it could have been reshaped after other *e*-variants of the paradigm after the proportion 2sg. *šem-a-*, 3sg. *šem-a-* : 1pl. *kəm-e-*, 3pl. *kəm-e-*, 1sg. *X-e-*; *X* = *kəm-* (see Pinault 1994: 196). It is questionable, however, if such an analogy is plausible if the preform was *šem-e-*; it seems that the match with the other singular persons is so strong that there is no need to create a unique irregularity in the sg. stem. All in all, the evidence of *kamau* is complex, but in view of the highly archaic alternations in its paradigm it should be taken seriously.

Schmidt and Winter have proved the existence of a Tocharian A 1sg. *s*-preterite ending *-u* next to well attested, but historically secondary ending *-wā* (1992). The forms in question are *kñasu* ‘knew’, *campu* ‘could’, *trikū* ‘was confused’, *prasku* ‘feared’, *wīyu* ‘was frightened’, to which *āwu* ‘hit’ must be added (Peyrot 2007b: 800). The problem with *wīyu* and *trikū* is that the root grade is “wrong”: in an *s*-preterite paradigm we would rather expect *a*-grade throughout, i.e. ***weyu* {way-w} and ***treku* {trayk-w}. It is a little disquieting that no other forms of their respective paradigms are attested, but taken at face value, these two forms seem to require a paradigm *trikū*, *trekäs**, *trekäs**, and so on. Although it can be excluded that *trikū* and *wīyu* are in fact preterite participles, an alternative explanation could take the *ä*-vocalism (in this case, *ī* /äy/) as secondary after the preterite participles; after all, the forms have long been wrongly categorised as preterite participles and for the speakers of Tocharian A such an analysis must have been a very natural one as well. It is remarkable, however, that the forms would have remained in their original domain of use despite a different analysis, and since they must be archaic anyhow because of their ending, the vocalism could certainly be old as well.

Although the evidence is scanty and alternative explanations are available, it is possible that the 1sg. of the *s*-preterite had another root grade than the rest of the paradigm. If we combine the evidence of Tocharian B *kamau* with that of Tocharian A *trikū* and *wīyu*, it appears that the original root grade was probably **ə* without preceding palatalisation. This non-palatalising *ə*-grade is matched by the zero grade needed for the stem variant *tas-* of *təs-* ‘put’ and thus finds a parallel within Tocharian.

Incidentally, Kortlandt has argued on completely independent grounds that the original locus of the lengthened grade **ē* in the Proto-Indo-European aorist were monosyllabic forms as were found only in the 2nd and 3rd persons of the active singular of the injunctive (1987). Given the fact that in Tocharian the equivalent of the non-lengthened grade is apparently non-palatalising *ə*-grade, the match between the distribution he assumes and the distribution we actually find in Tocharian B *kamau*, *šem*, *šem* could not be better. I am inclined to see this unexpected match as additional proof for the correctness of Kortlandt’s theory. However, I would like to point out that the root grade of the 1sg. is *not* essential for my explanation of the *s*-preterite as a whole: other analyses of the Tocharian data are possible; if one does not

accept Kortlandt's theory that **ē*-grade was originally found only in the 2/3sg. injunctive, this does not affect my derivation of e.g. the grading root preterite from the *s*-aorist.

4.5.10 O-GRADE

Tocharian B *o*-grade is one of the great puzzles of the verbal system. It seems to occur in two variants: 1) as an alternative full grade next to *a* in certain contexts, i.e. as a variant of *e*, 2) next to *a*, apparently also as full grade.

The first type is found in *yəp-* 'enter', which follows a normal gradation pattern except for the full grade *yop-* instead of expected ***yep-*, possibly with a parallel in isolated TA *yowäs* 'entered'; in *otk-*, the preterite stem of *wətk-* 'decide', where we would rather expect *wetk-*, but if the immediate preform of *otk-* is **wotk-*, the change *wo-* to *o-* has a parallel in *ost* 'house' < **wostə* (TA *wašt*); and in *yəm-* 'achieve', which has *yom-* instead of expected *yem-*, and the stem *yom-* is apparently generalised throughout in Tocharian A *yom-*.

The second type is found in *kow-* ~ *kaw-* 'kill' in 3sg.sbj. *kowän* and 3sg.prt. *kowsa*, where we would expect *e*-grade in *a|Ø*-roots, although we do not expect gradation at all in this *a|Ø*-root; in *or-* ~ *ar-* 'give up' in 3sg.sbj. *oräñ-c* and prt. 1sg. *orwa*, 2sg. *orasta*, 3sg. *orsa*, where we would expect *e*-grade in *a|Ø*-roots, although the *a*-grade in the 3pl.prt. *arar* is unexpected; in prs.-sbj. *yok-* 'drink' vs prt. *yak-*; and in *yom-* 'achieve' ~ *yam-* 'do', if these verbs are related, as I suggested in 4.3.7 (p 372).

It is striking that we find three roots starting with *y-*, one starting with a vowel and one starting with *w-*, that is, initials possibly liable to contraction if they become intervocalic, but it is difficult to discover a system in this range of forms.

Although it does not meet the exact conditions for the sound law *we* > *o* as I have formulated them (Peyrot forth.a), 3sg. *otkasa* is nevertheless strongly reminiscent of that development. Since this would probably require the ad hoc assumption that **wetk-* become *otk-* in sandhi position after a consonant, one might prefer to take *otk-* to reflect **wotk-*, a form possibly analogical after e.g. *yopsa* 'entered'.

yom- and *yop-* look parallel and would seem to need one explanation. Such an explanation should probably depart from rounding of **e* before a following labial, even though sound laws of this type have been discussed at length in the literature, and mostly dismissed for Tocharian B. Nevertheless, such a development would explain the Tocharian A forms rather nicely (see in particular Ringe 1990: 222-226), and it seems that the shared context *y-* is hardly a feasible option for an explanation.⁷⁹⁵

⁷⁹⁵ Hilmarsson, whose main endeavour was to explain Tocharian *o*-vocalism, has proposed several solutions. While his suggestion that the *o*-grades derive from an earlier *o*-subjunctive (analogous to the class 4 *o*-present; see 1986: 63) is clearly wrong, he dismisses his own explanation of *o* from earlier **e* through *u*-affection in the 1sg. of the subjunctive (e.g. 1989:

Although $o \sim a$ gradation in principle allows for a Proto-Indo-European reconstruction with $o < *eh_2$ and $a < *h_2$ (see e.g. Kim 2000), it is questionable whether such an origin would account for any of the attested instances of $o \sim a$. Rather, with Hackstein (1995: 42) and Adams (1999: 48, 208), it seems attractive to view the gradation of *kaw-* and *ar-* as neo-gradation, a specifically Tocharian innovation.

Whereas I have hesitantly accepted Schmidt's idea that *yok-* $\sim$ *yak-* 'drink' reflects old perfect gradation (see 4.3.6, p 371), I have for *yom-* $\sim$ *yam-* rather opted for an analogical zero grade *a* on the basis of the full grade *yom-*, in the sense of Ringe (apud Kim 2000: 156). *yam-* takes the place of $\varnothing$ -grade forms, compared to *yom-* for *e*-grade forms, but on the evidence of the stem variant *yam-* of *yom-*, the *a*-grade of *yam-* must be an innovation.

4.6 $\varnothing|A$ -ROOT SUBJUNCTIVE

Apart from the grading $\varnothing|Ø$ -root subjunctive, there is one other grading type: the $\varnothing|a$ -root subjunctive. In Tocharian A, the gradation pattern is identical to that of the *s*-preterite, whereas in Tocharian B it is affected by the following *a*: we find $a : \varnothing$ gradation instead of $e : \varnothing$ gradation. Since this subjunctive has initial accent – just like the $\varnothing|Ø$ -root subjunctive – it has also been argued that it goes back to the Proto-Indo-European perfect: the $e : \varnothing$ gradation was seen as a reflex of PIE $*o : Ø$ gradation, and the initial accent was thought to be an indirect continuation of the original reduplication syllable. Below, it is argued that the grading $\varnothing|a$ -root subjunctive is an analogical formation after the grading $\varnothing|Ø$ -root subjunctive.

4.6.1 GRADING SUBJUNCTIVE

There seems to be universal agreement that the $\varnothing|Ø$ -root subjunctive and the $\varnothing|a$ -root subjunctive continue one type: the $a : \varnothing$ gradation in Tocharian B is a secondary consequence of the root-final *a*. Thus, if the one is derived from the Proto-Indo-European perfect, the other should be derived from the perfect, too; if, conversely, one seems to go back to the aorist, the same should be true of the other as well. The problem is that on the one hand the perfect theory can offer no explanation for the systematic match between the $\varnothing|Ø$ -root subjunctive and the *s*-preterite, whereas on the other no one will be able to maintain that forms like TB 3sg. *tārkaṃ*, 3pl. *tarkaṃ* 'will let go' are *s*-aorists. Although this is a very serious problem indeed, I think that it can be used to make a breach in the system of grading subjunctives. That is to say, the only way out seems to assume that either the perfect-based subjunctive type spread to the *s*-preterite system, or the *s*-aorist-based subjunctive spread to $\varnothing|a$ -roots.

104, 122) as "difficult to accept" (1986: 62) or even "highly unlikely" (1996: 115). The same *u*-affection is assumed by Hackstein as an explanation for *yopu* and *yopsa* (1995: 311-312).

On the basis of the assumption that the grading subjunctive is original in only one of its subtypes, I will argue that the $\partial|a$ -root subjunctive is formed after the $\partial|\emptyset$ -root subjunctive with the following arguments:

- as set out in the introduction of this chapter in section 4.1.5 (p 334), and further elaborated in 4.9.3 (p 486), the meaning of the Tocharian subjunctive is not easily derived from that of the Proto-Indo-European perfect, and the perfect origin of the Tocharian preterite endings seems to suggest that the perfect rather became a past tense;
- just as with the $\partial|\emptyset$ -root subjunctive, the perfect theory does not explain why the “perfect subjunctive” should be confined to two grading types, nor why the $\partial|a$ -type should pattern the way it does;
- just as with the $\partial|\emptyset$ -root subjunctive, there is virtually no comparative evidence that the individual grading subjunctives attested continue perfect formations;
- since an explanation of the gradation pattern from the *s*-aorist is available for the $\partial|\emptyset$ -root subjunctive, but not for the $\partial|a$ -root subjunctive, the latter is likely to have been shaped after the former.

As the first point has already been treated in 4.1.5 (p 334), I will concentrate on the stem patterns of the grading $\partial|a$ -root subjunctive, on some of the comparative evidence, and on the exact way the transfer of the grading type is most likely to have come about.

4.6.2 STEM PATTERN

With only very few exceptions, the grading $\partial|a$ -root subjunctive follows only one pattern: it combines with a $\partial|a$ -root preterite and a nasal present. This nasal present, in turn, divides into two basic categories: the most frequent variant, the *na*-present, has an *n*-infix directly before the root-final *a* (traditionally class 6) and the other, the *ñk*-present, has an *n*-infix directly before the last consonant of the root (traditionally class 7). Both types are well attested in both languages. A minor class in Tocharian B is formed by verbs with $\tilde{n}\tilde{n}^{\partial}/_e$ -presents, whereas both languages have a couple of verbs with an *e*-present (Tocharian A *a*-present).

The nasal present pattern is not one of several ways in which grading subjunctives take their present, but *the* basic pattern. This is all the more true because there is also a reversed relationship: if possible, nasal presents always take a grading subjunctive. Thus, nasal presents are not a means to form a present to a grading subjunctive, but they correspond in an almost one-to-one pattern; it would be equally correct to claim that nasal presents take a grading subjunctive.

Counting certain and probable instances, I have found 43 *na*-presents in Tocharian B and 35 *nā*-presents in Tocharian A. In Tocharian B, these 43 *na*-presents are matched with 10 grading subjunctives, and an additional 2 with the characteristic $\partial|a$ -root preterite with initial palatalisation. While some subjunctive stems are lacking, all other *na*-presents are formed to *a|a*-roots, or only forms of the subjunctive are attested where ∂ -grade is regular in any case. In Tocharian A, we find

7 grading subjunctives and an additional 3 grading preterites corresponding to the 35 *nā*-presents. Whereas most *nā*-presents have no subjunctive attested beside them, others have only regular *ā*-grade forms or are formed to *ā|ā*-roots. The only Tocharian A verb that really does not fit the pattern is the irregular verb ‘know’ with a subj. {*kñāñā*/*a*-}. Thus, although the number of grading subjunctives attested next to *na*-presents is modest, there are no indications whatsoever that the *na*-presents are matched with different subjunctive *types*; at least, if *a|a*-roots are taken as a morphophonological subcategory (which they evidently are).

The *nik*-present is clearly less frequent in both languages, with 10 instances in Tocharian B and 15 in Tocharian A. Those 10 in Tocharian B are matched with 5 grading subjunctives and 1 additional *a|a*-root preterite with initial palatalisation; next to the 15 nasal infix presents of Tocharian A, 3 grading subjunctives and 1 additional grading preterite are found. Again, all other *nik*-presents are formed to *a|a*-roots, or the relevant forms might be missing due to chance: the subjunctive-preterite system is of one single type. Moreover, apart from the formation of the present, there is no difference to the subjunctive-preterite type of the *na*-presents.

The *ññ³/e*-presents in Tocharian B seem to match rather with non-grading subjunctives, and this problem will be discussed separately (4.6.10, p 450). Likewise, grading subjunctives next to *e*-presents are rare; they are also treated below (4.6.8, p 447).

In conclusion, there is a strong affiliation, almost a one-to-one correspondence, between the nasal present, the grading *a|a*-root subjunctive, and the *a|a*-root preterite with initial palatalisation in both languages (and, additionally, gradation in Tocharian A). Consequently, an explanation of the grading *a|a*-root subjunctive must address the problem of this salient distribution.

4.6.3 COMPARATIVE EVIDENCE

Whereas the origin of the grading *a|a*-root subjunctive is debated, that of the *na*-presents is not: it is generally accepted that the nasal presents of Tocharian go back to nasal presents in Proto-Indo-European. However, there are two important things to be noted: first, the nasal presents have resulted from the generalisation of different types and, second, they have been productive in pre-stages of Tocharian. Yet this does not in any way undermine the ultimate derivation of the nasal presents from Proto-Indo-European nasal presents; moreover, some nasal presents do have good cognates outside Tocharian. Perhaps the definitive argument for the derivation from Proto-Indo-European nasal presents is that there is simply no other source the nasal presents could go back to.

Phonologically, *na*-presents continue Proto-Indo-European nasal presents to *seṭ*-roots, where the nasal was infixed before the root-final laryngeal; this root-final laryngeal was then vocalised to *a*. Thus, Toch. $\sqrt{-na-}$ derives from PIE $\sqrt{-nH-}$, where the *n* was an infix in a root in $\sqrt{-H-} \rightarrow \sqrt{-nH-}$. In Proto-Indo-European, a full grade *e* moved from the root to the ending, i.e. 3sg. $\sqrt{CCn\acute{e}H-ti}$, 3pl. $\sqrt{CCnH-énti}$.

Further, the type was not restricted to roots in *-H*, but it was originally probably also found with roots in *-u*, e.g. 3sg. *CCnéu-ti, 3pl. *CCnu-énti; at least, it is suggestive to derive the independent suffix *-neu-* from a wrong segmentation of such a nasal present. In Tocharian, *na*-presents display no traces of older gradation: if any vowel alternation arose, e.g. *no ~ *na < *neh₂ ~ *nh₂, it was ultimately neutralised, as well as consonant alternations like *ñe ~ *na < *neh₁ ~ *nh₁. The *neu*-present type has not been preserved as such and at least some must have ended up as *na*-presents (others may have been extended to become *nask*-presents).

As in many other Indo-European languages, *na*-presents must have been productive in Tocharian. There are some Tocharian verbs with a *na*-present and a good Indo-European etymology, where the Proto-Indo-European verb formed no nasal present. In other cases, Tocharian *na*-presents are found with secondary roots, so that it is certain that the *na*-presents are secondary, too. As an example of a *na*-present that is probably secondary for etymological reasons, we may cite TB *karsa-*, TA *kärsā-* ‘know’, which is related to Hitt. *karaššiezzi* /*karsijet*si/ ‘cuts’ (through ‘distinguish’; see LIV2: 355; Kloekhorst 2008b: 454-455); there is no proof of a nasal present for this verb. Nasal presents to secondary roots are relatively frequent, found to roots in *-sk*, *-tk*, *-t* and to denominative verbs. Verbs in *-sk*, discussed in detail by Hackstein (1995: 167-202), go back to *sk*-presents, so that *na*-presents like TB {plask-na-} to *plaska-* ‘think’ must be secondary; the same is true of nasal infix verbs in Tocharian A like {mäs-n-kā-} to *maska-* ‘be difficult’ (on which see below). Likewise, verbs in *-tk* go back to *sk*-presents to roots with a final dental, as shown by Melchert (1977). Although most of these have become *nik*-presents, TB has *na*-presents such as {kətk-na-} to *kətkā-* ‘cross’; both the *na*-presents and the more frequent nasal infix presents to these secondary *tk*-roots are themselves secondary, too. Verbs with a *t*-extension are not frequent, but TA {krəšt-nā-} to *krəštā-*, TB {krəst-na-} to *krəsta-*, both ‘cut’ are related to *karsa-* ‘know’ cited above, and TA {kot-nā-} to *kota-*, TB {kawt-na-} to *kawta-* ‘chop’, as well as TA {košt-nā-} to *koštā-* ‘kill’ are evidently related to TB *kaw-*, TA *kāw-* ‘kill’. How exactly the *t*-extensions arose is unclear, but most probably they originally formed a stem, for instance the present; consequently, *na*-presents to *t*-roots are very likely to be secondary. In the same vein, TA {spält-n-kā-} to *spältkā-* ‘try’ must be a secondary nasal infix present because the verb is obviously derived from the noun *spältäk* (TB *speltke*), a loan word from Iranian (Adams 1999: 719).

Despite the partly secondary character of the *na*-present (because allomorphy was levelled) and its partly secondary distribution (because many verbs have acquired a *na*-present at a later stage), there are some convincing etymologies that show that the type as such is old.

TA *kātā-* and TB *kəta-* ‘strew’ form a *na*-present: TA {knā-} (for {kät-nā-}) and TB {kətna-} (with an older variant {kənta-}). The verb is to be derived from PIE *(s)kedh₂-; the Tocharian *na*-present is matched by a.o. YAv. *sciñdaiieiti* ‘breaks, destroys’, OKhot. *ha-tcañāte* ‘id’, Gk. σκίδνῃμι ‘scatter’ and possibly Lith. *kedènti*, *kedinti* ‘pick, trouse’ (LIV2: 550).

TA *tärkā-* and TB *tərka-* ‘let go’ form a *na*-present: TA {*tärnā-*} (for {*tärknā-*}) and TB {*tärkna-*}. The verb has a good cognate in Hitt. *tarnai-* ‘let go’, which also forms a nasal present. Kloekhorst reconstructs the root as **ter^hk^h_{1/3}-* (2008b: 846–848; see also LIV2: 635): in principle, one would reconstruct a PIE **TerKH-*, but 1) the velar can only drop in Hittite if it is **k* or **k̑*, 2) Tocharian excludes **d* which would become *t^s*, 3) **h₂* would have yielded *h* in Hittite, and 4) **d^h* and **k* or **k̑* are not tolerated in one root.

TA *kālā-* and TB *kāla-* ‘lead, bring’ have gemination in the present that must reflect a *na*-suffix, cf TA {*källā-*} from {*kälnā-*}. In Tocharian B, the present was recharacterised with an *sk*-suffix: {*källa^{ssə}/ske-*} from older {*källa-*} for original {*kālna-*}. The verb probably goes back to PIE **kelH-* (LIV2: 349; Hackstein 1995: 315; Kim 2009: 15), further attested in Lat. *excellō*, *-ere* ‘excell’ and Lith. *keliù*, *kélti* ‘lift, raise’. The *na*-present could have a parallel in the Lat. present.

TA *māwsā-* and TB *māwsa-* ‘lift’ form a *na*-present: TA {*māwsnā-*} and TB {*māwsna-*}. The verb is probably to be connected with Skt. *moṣ^(ṭ)-* ‘take away, rob’ (LIV2: 445), which matches the Tocharian *na*-present with a nasal present 3sg. *muṣṇāti*.

Next to the TA and TB causatives of TA *tāl-*, TB *tāl-* ‘lift up’ (TA inf. *tlässi*, TA 3sg.prt. *cacāl*, TB inf. *talätsi*, TB 1sg.prt. *cālawā*), a poorly attested base verb ‘lift, bear’ is only found in Tocharian B. Active present forms show a geminate *ll* which suggests an older *na*-suffix, i.e. {*tälla-*} from {*tālna-*}, and middle present forms seem to be built on a stem {*tləna-*} (3sg.prs.mid. *tlanatär-ñ*, 3pl.prs.mid. *tlanantär-ñ*), although a crossed stem {*təlləna-*} is attested in at least one form, *tällanantär-ne*. Despite the uncertainties about the synchronic analysis, an older nasal present is ascertained, and it finds its parallel in e.g. Lat. *tollō* ‘lift’, OIr. *tlenaid* ‘steals, carries away’, and probably Gk. ἀνατέλλω ‘bring forth, make rise up’, all from well attested PIE **telh₂-* ‘lift’ (LIV2: 622).

TB **səyka-* ‘take a step’ – without Tocharian A cognate – forms a *na*-present {*səykna-*}. The verb must go back to PIE **seik-* ‘reach’, attested in a.o. Gk. ἰκάνω, ἰκνέομαι ‘come, reach’ and Lith. *siekti* (*siēkti*) ‘strive for, try to reach’ (the acute of *siekti* is unexpected; LIV2: 522). On the basis of the Gk. prs. ἰκνέομαι we can reconstruct a *neu*-prs. for Proto-Indo-European, which was apparently replaced by a *na*-prs. in Tocharian.

TB *t^saka-* ‘prick, bite’ – without Tocharian A cognate – forms a *na*-present {*t^sakna-*}. The traditional etymology of this verb connects it with Gk. δάκνω ‘bite; sting’ and Skt. *dāśati* [3sg.prs.] ‘bite’, root *damś-*, which go back to PIE **denk-* ‘bite’ (e.g. Adams 1999: 731; LIV2: 117–118). For Tocharian, we have to assume that the nasal in the root was dissimilated before the nasal suffix, also found in Greek. Now that Ringe has proposed an alternative etymology (1991: 71; 1996: 23, 24) the match of the Greek and Tocharian nasal present has become less valuable. With the argument that the meaning fits better, he rather connects Lat. *figō*, *-ere* (OLat. *fivō*, *-ere*) ‘fix, fasten, stab’ and Lith. *dýgti* ‘sprout’, which derive from PIE **d^hiHg^w-* ‘stab’ (LIV2: 118, 142). In my view, both connections are possible as far as the meaning is concerned:

‘cause pain’, one of the meanings posited by Ringe for Tocharian, is of course easily derived from ‘prick’, and it is even found in Greek as well, where δάκνω can also mean ‘wound’. However, Ringe’s etymology has the slight advantage that it accounts for stable *a* in the Tocharian root; even though it offers no explanation for the Tocharian stem pattern, it is at least a possible alternative.

Despite its irregularities, the *na*-present of ‘know’, TA {knāna-}, is evidently old, too.

In sum, a large part of the *na*-presents is demonstrably secondary, but the type as such is certainly old: a small nucleus of *na*-presents can be shown to have good morphological cognates in Indo-European.

4.6.4 ÑK-PRESENTS

Next to the *na*-presents discussed above, both languages have a category of *ñk*-presents where the nasal is infix before a root-final *-k*, e.g. TB *pəyk-* ‘write’ → prs. *pəyɳk-* or TA *kātkā-*, TB *kətk-* ‘cross’ → prs. TA *kātāñkā-* from {kātɳkā-} and TB *kəttāñk-* from {kəttɳk-}. As it turns out, the first type with one closing consonant (not counting the *y*) is extremely rare compared to the second type with two closing consonants. With only very few exceptions, the first type is inherited and the second type is secondary: it is especially frequent with secondary root types like *tk*-roots (in Tocharian A and B) and *sk*-roots (in Tocharian A only). The second type must be a later subtype of the *na*-presents.

There are two arguments that the *ñk*-present type is largely secondary: 1) functionally, it is completely identical to the *na*-present type, semantically (both are transitive) as well as morphologically (both pattern with the same subjunctive and preterite stems); 2) *ñk*-presents are only found with roots in *-k*, so that they are almost fully in complementary distribution with the *na*-present type. Below, I will discuss the second argument; for the first, I refer to 2.6.9 (p 111) and 2.7.9 (p 136), respectively.

ñk-presents are formed to a limited set of roots that share formal characteristics: in Tocharian A, 8 verbs have a root ending in *-tk*, 5 have one in *-sk*, 1 in *-lk* and 1 in *-rk*; in Tocharian B we find 6 in *-tk*, 1 in *-k*, 1 in *-lk* and 1 in *-rk*. This peculiar distribution strongly suggests that the division between *na*-presents and *ñk*-presents is secondary. Theoretically, it can have come about in two ways: either nasal infix presents were lost except in particular roots ending in *-k*, or they arose by some development conditioned by a final *-k* of the root. In the former case the category of nasal infix presents is archaic, in the latter it is recent. As I will argue, both principles have been at work, but most of the nasal infix presents are recent and only three are archaic.

First, I will discuss the verbs with an old nasal infix present, and then I will discuss the relationship between the *na*-presents and the secondary *ñk*-presents.

TA *päyk-*, TB *pəyk-* ‘write’

The word for ‘write’ is strikingly parallel in both languages: TA *päyk-* ‘write’ as well as TB *pəyk-* ‘id’ have a preterite-subjunctive stem in *a* with *a*-grade (TA *ā*-grade) and a corresponding preterite participle: TA *peka-*, ptc. *pāpeku*, TB *payka-* (sbj. *páyka-*, prt. *payká-*), ptc. *papaikau*. The difference is confined to precisely the present, where Tocharian B has a nasal infix present {*pəynk-*}, but Tocharian A has {*päyk-*}, a rare formation, certainly in view of the preterite-subjunctive. Since the Tocharian B verb stands out among the nasal infix presents in having a rare gradation pattern and only a single closing *-k* instead of a cluster in *-k*, it is not likely to be secondary; consequently, the nasal must have been lost in Tocharian A.

As there is no morphological model for the loss of the nasal in Tocharian A, it must have been lost through sound change. The cluster *nk* <*ñk*> is abundantly attested with good correspondences to Tocharian B cognates, so that a following *k* cannot be a sufficient condition. However, heavier clusters of the type *nkt* and *nkts* were indeed resolved: *nkt* became *nt* as in TA *opänt* ‘in the middle’ ~ TB *epiñkte* ‘within’ and TA *pänt* ‘fifth’ ~ TB *piñkte* ‘id’;⁷⁹⁶ *nkts* became *nts* as in TA *ents-* ‘seize’ from **enks-* (cf TB *enk-*; see Adams 1999: 78; Peyrot 2007b: 800). Thus, a preform like 3sg. **piñktrā* or inf. **piñktsi* must at first have developed into **pintrā*, **pintsī*;⁷⁹⁷ subsequently, the *k* was restored at a time when the cluster *ñkt* was still not tolerated, so that the result had to be *kt*. The fact that there are many words where we find clusters with *ñk*, like *ñks*, *ñkš*, *ñkt* and so on, is no decisive counterargument, since in all these words there is always alternation with variants with lighter clusters: in *päyk-*, it must have been the limitation of the *n* to the present that made the generalisation of *n*-less variants possible.

The etymology of Proto-Tocharian **pəyk-* is obvious: it is related to a.o. Skt. *piñśati* [3sg.prs.act.] ‘adorn, form’ and Lith. *piešiu*, *piešti* ‘draw, write’, Sl. *pišō*, *pvsati* ‘write’, which go back to PIE **peik-* ‘form’ (LIV2: 465-466). Also clearly related is Lat. *pingō*, *-ere* (LIV2: 464), which received its *g* instead of *k* through the nasal infix. Thus, we can equate the Proto-Tocharian nasal infix present with the ones found in Sanskrit and Latin.

TA *läyk-*, TB *layka-* ‘wash’

The reason to discuss the verb for ‘wash’ here is first of all Tocharian A *läyk-* (tr.), which has a peculiar stem pattern only matched by *päyk-* ‘write’ and *säyp-* ‘anoint’ (on which see below): prs. {*läyk-*}, prt.-sbj. {*läyka-*}, prt.ptc. *läleku* (see also 2.6.8, p 109). In Tocharian B, there are two verbs, a transitive ^{s2}/_{se}-prs. {*läyk^{s2}/_{se}-*} and an intransitive *o*-prs. {*layko-*} with prt.-sbj. {*layka-*}. In spite of the difference in

⁷⁹⁶ In this case, it is also possible that the ordinal suffix *-t* was added directly to *pāñ* ‘five’.

⁷⁹⁷ Similar constellations may have been found in the 2sg. **piñktār*, 2pl. **piñkcār* and possibly 1sg. **piñkmār*. The 1pl. and 3pl. very probably had an epenthetic vowel, i.e. **piñkāmtrā* and **piñkäntrā*, respectively.

valency, the latter is probably to be compared with the Tocharian A verb, its *o*-present being a productive formation to the prt.-sbj. *layka*-, which can directly be equated with the Tocharian A stems.

Evidently, the reconstruction of an old nasal infix present **ləynk*- for Tocharian A *läyk*- is less certain than that of **pəynk*-, but it is the most economical explanation of the strange pattern, and, moreover, there are parallels in Indo-European. Proto-Tocharian **ləyk*- can be connected with the Lat. nasal infix present *pollingō*, -ere ‘wash off (corpses)’ and Lat. *liqueō*, -ēre ‘be fluid’ (Hackstein 1995: 122-123), which on the evidence of OIr. *fliuch* ‘humid’ goes back to PIE **uleikʷ*- (LIV2: 696-697).

As noted above, a third Tocharian A verb with this pattern is *säyp*- ‘anoint’: its present is {*säyp*-} and the preterite-subjunctive {*säypa*-}. However, the historical explanation of this verb is full of problems: Tocharian B *sanapa*- ‘anoint’ offers a fine semantic match and a certain similarity in form – including, indeed, a nasal – but details are difficult. Most problematic is the absence of any trace of *y* in the Tocharian B verb. Further connections of *säyp*- are also doubtful, the best being an improbable root **seib*- ‘let flow’ with -*b* (LIV2: 521). Even if Greek εἶβω ‘let flow’ is not related and the Germanic family of a.o. MDu. *sipen* ‘drip’ and MHG *sifen* ‘flow’ can be explained from a geminated **-p* or **-bʰ*, the comparison does not inspire confidence because of the late and poor attestation of the root.

PT **sərk*- ‘be good; make good’

In both languages there are forms with an apparently nasal-infixed root *sərk*-, *srənk*-. Only few forms are attested and it is difficult to establish the meaning and the stem pattern of these verbs. As shown by the Sanskrit parallel to the passage where one of the key forms, *srañciyem*, is attested, the meaning traditionally assigned to TB *srənk*-, “in Wallung bringen” (Thomas 1964: 254), is wrong. Pinault (2008: 117-118) rather argues for “être soucieux, préoccupé de”, whereas Schmidt (2008: 330) opts for “[eine Speise] zubereiten”.⁷⁹⁸ In my view, the latter is correct because it yields a transparent and straightforward rendering of the relevant passage, in line with the Sanskrit parallel.

B107a1

tā_u oñkorñ(aī) srañciyem

‘They prepared the porridge.’⁷⁹⁹

⁷⁹⁸ His translation on p 321, “sich daran machen, zuzubereiten”, suggests that the Tocharian verb has an additional semantic component ‘begin’. Although this nuance is indeed found in the Sanskrit parallel, it is not inherent in the meaning of the Tocharian verb.

⁷⁹⁹ Gnoli (1977: 109, l. 17-19): *tatas tā aṣṭau dohayitvā sphatikamayyāṃ sthālyāṃ ṣoḍaśa-guṇitaṃ madhupāyasam sādhayitum ārabdhāḥ* ‘Then, after they had milked the eight [cows], they began to prepare the milk porridge, sixteen times concentrated, in a rock-crystal bowl.’ (Pinault 2008: 160; Schmidt 2008: 321).

Another relatively good passage is the following, where anything like ‘boil’ is evidently excluded. Although the precise meaning unfortunately remains obscure to me, it is certain that the overall sense of line 18c is positive, whereas fear for old age is negative: apparently fear for old age is tempered.⁸⁰⁰

AS7Ma2⁸⁰¹

/// *kektseñmeṃ päst | palsko skainaṃ tsalpätsi* • [18b]
cmelaśc alloñkna | srañkāṃ proskai ktsaitsñe(sa) • [18c]
yneś ran(o) lkāśāṃ | ktsaitsñe tsuwai (sru)kalyñ(e) 18
 ‘... he tries to free [his] mind from the body; for other births, he settles [his] fear for old age; and manifestly he sees old age up to death.’

The situation in Tocharian A is still worse, the following being the best passage.

A343a2

(*ku*ya)l (*pa*)t ñi enaṣlune mā (*kaś to*)rāṣ el essik ats srāñkā(t) ///
 ‘Or why do you prepare to give gifts ..., not paying attention to my command?’⁸⁰²

Malzahn (forth.b) discovered a possible causative to this verb, in a passage where again the correct translation is not obvious.

AS7Na3-4

śak pārkawānta pyapyai ailyñentse tuk-yaknesa sarkāṣṣälle •
 ‘The ten profits of donating flowers can be achieved [?] in this way.’⁸⁰³

With the few but nonetheless varied examples it is difficult to give a unified meaning of the verb – on the assumption that they actually belong together, of course. In my view, three of the examples above can be captured with an abstract ‘make good; put in order’. This sense is perfectly compatible with B107a1, where anything from ‘prepare’ to ‘put in order’ would do; in AS7M ‘settle’ yields an acceptable translation, and it can easily be derived from ‘put in order’, ‘make right’; the example in AS7N might be understood as ‘be organised; be fixed’. The most difficult is A343, but if that clause is translatable as we have it (in fact, a crucial part may be lacking), ‘prepare’ in the sense ‘plan to’ is certainly an option; alternatively, one might think of ‘want; insist’ or ‘continue’.

⁸⁰⁰ AS6Ea1 *sārmāške wi srāñken-ne* • is of no use.

⁸⁰¹ Verse: metre 4 x 5 | 7 (5 | 4+3).

⁸⁰² Schmidt’s most recent translation (2008: 330) is not better, only more vague: “(Oder warum) läßt du es dir unter Mißachtung meines Befehls angelegen sein, eben dennoch Gabe zu geben?”.

⁸⁰³ Perhaps we can compare Lévi (1932: 149; Sanskrit Mahākarmavibhaṅga 74) “Telles sont les dix qualités qu’on a si on donne une simple fleur.”

If the example in AS7N is judged particularly problematic, it could be argued that *sarkäššälle* is not related, after all. However, there are independent arguments to take the other forms as nasal infix presents, so that they must derive from a root *sark-* in any case:

- 1) no non-present forms *with* an internal nasal are attested – such forms would prove that the nasal belonged to the root and not to a suffix;
- 2) a root **sränk-* is too “heavy”, both from a Proto-Indo-European and a Tocharian perspective – the only way to make it “light” again is to analyse the nasal as an infix;
- 3) the correspondence between TB {s(ə)ränk-} without final *a* and TA {sränkā-} with a final *ā* is only regular if both are nasal infix presents.

Thus, if one wanted to exclude *sarkäššälle*, this would automatically imply the existence of *two* roots *sark-*.

As far as its form is concerned, the root *sark-* is immediately reminiscent of *šark-*. The latter verb is found in both languages, usually glossed as ‘excel, surpass’ (cf Thomas 1964: 149, 250, “übertreffen”). Both TA *šark-* and TB *šark-* are completely regular *sk*-causatives without base verb, cf e.g. TB 3sg.mid.prt. *šarkate*, prt.ptc.2 *šešširku*, -oš, and TA 3sg.mid.prs. *šarkäšträ*, prt.ptc.2 *šašärku*. If *sark-* and *šark-* are related, the latter must have been the causative to the former (see Winter 1980b: 555⁸⁰⁴), but not on the synchronic level. That is, TB *sarkäššälle* is probably the synchronic causative to TB *sark-*: *šark-* must be the old causative and *sarkäššälle* a new one (for the initial palatalisation, cf 2.5.4, p 73). Semantically, the relationship between *sark-* and *šark-* can be understood as ‘make good’ versus ‘be good’ (i.e. ‘be better’). The problem with this comparison resides in the valency: the base verb *sark-* is transitive, whereas the derived causative *šark-* is intransitive. Without having a definite solution for this problem, I propose the following: all forms of *šark-* are middle, which could have cancelled one actant;⁸⁰⁵ the fact that *sark-* is transitive must have been caused by the nasal infix present. Unfortunately, it cannot be decided whether **šark-* was derived from this nasal infix transitive verb, or from yet another verb that was intransitive; in the latter case, the intransitive value of the causative would be easier to understand.

The Tocharian root *sark-* has a probable etymology in Hitt. *šarku* ‘eminent, powerful’, *šarni(n)k-zi* ‘compensate’, *šarkiške/a-zi* ‘be good’ and Lat. *sarciō* ‘patch up, repair’ (LIV2: 536; Kloekhorst 2008b: 734-735, 736-737; originally Kronasser 1957: 127),

⁸⁰⁴ However, his “steigen lassen” for *sränk-* can be discarded. In a later article, he seems no longer to believe in a connection between *sränk-* and *šark-*, which makes him abandon the connection with Hittite (1997: 189).

⁸⁰⁵ The only active form I know of is *šarkšäm* IT524b2. As its context is fragmentary, *šarkšäm* could actually be transitive.

which presuppose a root PIE **serk-* (or **serk-*).⁸⁰⁶ Probably, the root **serk-* meant ‘be good’, which is directly reflected in Hitt. *šarku* and *šarkiške/a-zi*. The Tocharian nasal present can be compared to the *nin*-infix present of *šarni(n)k-zi*, which may reflect a Proto-Indo-European formation.⁸⁰⁷

secondary *nik*-presents

Since secondary *nik*-presents are phonologically distributed, their explanation must involve a sound law. In view of the sound developments with nasal clusters, namely *tn* > *n* in Tocharian A and *tn* > *nt*, *pn* > *nm* in Tocharian B, the assumption of a metathesis of *kn* to *nk* is only natural. Questions to be addressed are:

- 1) do the two languages display the same outcome of the sound change;
- 2) why do we find <*ñkā*> in Tocharian A and <*ñkă*> in Tocharian B;
- 3) how should we explain the existence of *na*-presents to roots in *-k*;
- 4) why do we find *na*-present forms next to *nik*-present forms in TB?

I will try to treat these questions, of which some are connected, systematically below.

sub 1) All instances are found with roots in *-k*, and in both languages roots in *-tk* are the most frequent. Thus, Tocharian A and B agree in having undergone a sound change *tkn* > *tnk*. Apart from *-tk*, we find *-rk* and *-lk* each once in both languages, and several instances of *-sk* in Tocharian A only. As I argued above, TA *srāñkā-*, TB *srāñk-* might be old and need not be secondary. Although independent proof is not available, I am inclined to take *-lk* to be parallel to *-rk*: it is also isolated, and phonologically comparable. Consequently, there is no proof of metathesis after resonants. Tocharian A *-sk* is a different matter. It is conceivable that a metathesis

⁸⁰⁶ In view of the new interpretation of the meaning, Adams’ connection of TB *srāñk-* with Gk. στραγγός ‘twisted’ (1999: 722), for which he assumes a development ‘twist’ > ‘whirl’ > ‘boil’, can be discarded.

⁸⁰⁷ Evidently, I cannot accept Schmidt’s connection with Lith. *sérġėti* ‘guard’, Skt. *sūrksati* ‘care about’ and OIr. *srengaid* ‘pull’ (2008: 330). According to him, the semantic link between ‘pull’ and ‘care for’ is supported by the Tocharian B – Old Uyğur bilingual pair : *sarkoy* : *tartsar* : U5208a5. Although the reading is relatively clear, the interpretation is not – contrary to what Schmidt’s presentation suggests. The text consists of Tocharian B words followed by Old Uyğur equivalents, but it is not a dictionary: in a number of cases, the entries clearly belong together, forming a story. As long as the relationship between the different entries is not clarified, the interpretation of the word pairs remains uncertain. Schmidt correctly interprets *sarkoy* as a 3sg.opt., apparently of a subjunctive stem *sārka-*, which would in fact fit the forms of *sark-* given in the main text; and indeed, *tartsar* is a 3sg. conditional form of *tart-* ‘pull’ (Clauson 1972: 532). However, a translation ‘if he pulled’ for *sarkoy* is not in line with the other attestations of *sark-*. As far as I can see, the only way the Tocharian and the Uyğur words can be matched, is to take *tart-* in one of its many extended meanings (among which ‘weigh; take; bring’), namely ‘procure, draw together’ (Clauson l.c.). Otherwise, I would consider *sarkoy* to stand for *tsarkoy* and take *tart-* to mean ‘suffer’ (Clauson 1972: 533). Of course, it cannot be completely excluded that there was a second verb *sārka-* meaning ‘pull, draw’.

skn > *snk* was undone in Tocharian B, but since all nasal infix presents, including the original ones, were found with *-k*, it is also possible that the type was further regularised in Tocharian A.

sub 2) In Tocharian B, all *nik*-presents end *-nik-*, while in Tocharian A, all end in *-nikā-* except *päyk-* and *läyk-* (which are synchronically no nasal presents); in both languages, all non-present stems end in *-ka*. Evidently, the lack of *ā* in TA *päyk-* and *läyk-* must be original since it is exceptional. Conversely, the regularity in the other verbs suggests analogical restructuring. In my view, a sound law whereby *kna* would have become *nk* is improbable. As alternative explanations, we could assume that a) *nik*-presents were lined up with the original nasal infix verbs in *nkə* in Tocharian B, b) another sound law is responsible for the change of *nka* to *nkə*, c) some verbs originally had no root-final *-a* (**nə* < **-nu-*) and this type was generalised in Tocharian B, or d), as a variant of c), the type originally had *nk* throughout, but root-final *ā* was generalised on the basis of the other stems in Tocharian A. In view of the regularity of the type, option c) can be discarded; d) is not very likely either because *tk*-verbs originally had no root-final *a*, so that it was most probably introduced at once and in all stems. For b), the only sound law I can think of is the reduction of *a* to *ə* in posttonic position, preceding a heavy syllable (4.4.6, p 398). Although all *nka* were found in posttonic position, there were not many forms where it was followed by a heavy syllable; notably, not more than in any other paradigm in *-a*. If b) offers no solution, the only remaining option is a), although it is disquieting that the number of original nasal infix verbs is so small. Nevertheless, they clearly formed a type and there was no other comparable type, which made the new *tnk*-type liable to influence.

sub 3) (exclusive) *na*-presents to roots in *-k* are not infrequent at all in either language. However, most of these have simple *-k*, not a *k*-cluster: these verbs need not concern us here (TB *pəynkə-* is no counterexample because it must be old). The same reasoning can be applied to roots in *-rk*, as there is no proof that *rkn* was ever metathesised to *rnk*. This rids us of the only remaining example in Tocharian A, {*tärnā-*} to *tärkā-* ‘let go’, and of {*kərkna-*} ‘rob’, {*tərkna-*} ‘let go’ and {*tərkna-*} ‘torment’ in Tocharian B. In Tocharian B, there is one *na*-present form to a *tk*-verb without nasal infix forms next to it, 3pl.ipf. *latkanoyeñ-c* ‘they stripped you’, but we may safely assume that those nasal infix forms are not attested by chance. Two Tocharian B verbs in *-sk* remain: {*pləskna-*} ‘think’ and {*mrawskna-*} ‘feel weary’. For the discrepancy between Tocharian A and B in *sk*-verbs, I refer to point 1) above, and to 4.6.10 (p 450) below.

sub 4) The variation of Tocharian B *nik*-present forms with *na*-present forms has no clear chronological distribution (Peyrot 2008a: 144-145), and I am unable to see any morphological difference between forms with *-nik-* and the ones with *-na-*. Therefore, if one would want to argue that the metathesis of *tnk* to *tnk* took place only in some forms of the paradigm, so that both metathesised and original forms could survive, this is impossible to prove. Consequently, I opt for the simplest solution, that is, all *na*-forms result from secondary restoration of the *na*-suffix.

Evidently, as soon as some *na*-forms had been created, the difference could be used for all kinds of ends, including metrical purposes.

conclusion

As shown above, at least three nasal infix presents with root-final *-k* are original: *pəyk-* ‘write’, *ləyk-* ‘wash’ and *sərk-* ‘make good’. Their archaic character is not only implied by the isolated root structure in Tocharian (with a single root-final *-k* or *-rk*) and by the unique gradation pattern of *pəyk-* and *ləyk-*, but additionally by comparative evidence of Indo-European. Conversely, most other nasal infix presents are certainly secondary, resulting from a sound change that affected a subset of *na*-presents to roots in *-k*. The *nik*-presents to roots in *-tk* inevitably arose by sound change, whereas for roots in *-sk* the evidence is contradictory: either they came about by sound change, or the nasal infix type eventually spread to these roots by analogy.

My investigation of the *nik*-presents has revealed no special connection with the Proto-Indo-European perfect; instead, it seems that as a type, *nik*-presents reflect Proto-Indo-European nasal presents, just like *na*-presents. There is no comparative evidence suggesting that the grading subjunctive corresponding to TA {kät:nkâ-}, TB {kətt:nk-} ‘cross’ as attested in TA 3sg. *katkaş* {katka-ş}, 3pl. *kätkeñc* {kätkä-ñc}, or TB 2sg. *kātkat* {kātka-t}, inf. *katkatsi* {kātka-tʰəy} reflects a Proto-Indo-European perfect.

4.6.5 ROOT AORIST

The Tocharian nasal presents correspond to a root preterite with root-final *-a*. In addition, this preterite is characterised by palatalisation of palatalisable initials, in Tocharian B in the whole active and in Tocharian A in the singular of the active; the remaining forms have no palatalisation. As the palatalisation must have spread secondarily in Tocharian B, and the *a*-grade active plural forms of Tocharian A are secondary, too (see below, 4.6.7, p 446), the original paradigm must have had palatalisation only in the active singular: act.sg. **cərka-*, act.pl. and mid. **tərka-*. As noted already by Pedersen, this alternation must go back to the **e : Ø* gradation of the Proto-Indo-European root aorist, whereas the characteristic root-final *-a* of the Tocharian preterite reflects the root-final laryngeal of Proto-Indo-European *seṭ*-roots (1941: 185). Although direct comparative evidence for this derivation is scarce (cf already Pedersen l.c.), the explanation of the pattern as such is generally accepted (cf especially Schmidt 1982: 368-371; further, e.g. Pinault 2008: 597-598; Kim 2009: 14-16).

Thus, if we adhere to *tərka-* as the example verb, the active singular reflects **terkH-* and the other forms **trkH-*:

	PT		PIE		PT		PIE
sg.act.	<i>*cərka-</i>	<	<i>*terkH-</i>	sg.mid.	<i>*tərka-</i>	<	<i>*trkH-</i>
pl.act.	<i>*tərka-</i>	<	<i>*trkH-</i>	pl.mid.	<i>*tərka-</i>	<	<i>*trkH-</i>

Unfortunately, the root aorist of this verb is not directly attested elsewhere, and the same is true of many other verbs. Nevertheless, some examples of correspondences can be adduced: TB 3sg. *ścama* ‘stood (up)’ ~ Skt. aor. *ástambhīt* ‘supported’ < **(h₁e-)stemb^hH-t* (LIV2: 595); TB 3sg. *śata** (2sg. *śtasta*) ‘strew’ ~ Gk. ἐσκέδασα (with usual replacement by the σ-aorist; LIV2: 550) < **(h₁e-s)kédh₂-t*; TA 3sg.mid. *musāt* ‘lifted up’ ~ Ved. 2pl.sbj.mid. *móṣathā* ‘you will rob’ from a stem **m(e)usH-* (LIV2: 445).

The fact that exact correspondences are relatively few, even compared to the small number of nasal presents with direct matches, is partly due to remodellings or loss of the root aorist in other Indo-European languages, but most of all to the regularisations at the basis of the Tocharian pattern. Although the origins of the nasal present type and the root aorist type are evident, both have spread beyond their original domains: nasal presents have been uniformised to a *na*-type with *x|a*-roots. That is to say, in many verbs the root-final *-a* is *not* the reflex of a root-final laryngeal, at least not a direct one: it is a feature of the root concomitant with the *na*-present.

Nevertheless, the pattern is clear: Tocharian nasal presents continue Proto-Indo-European nasal presents, and the corresponding root preterites continue root aorists. This origin is suggested first of all by structural parallels between Tocharian and Proto-Indo-European, but additionally by comparative evidence. Importantly, there is no special link with the Proto-Indo-European perfect other than the gradation pattern and the initial accent; indeed, it is not easy to fit the perfect in the neat correspondence to a well-known Proto-Indo-European type of nasal presents and root aorists (see Strunk 1967).

4.6.6 TRANSFER

As pointed out above in 4.6.1 (p 430), the parallelism between the grading ə|Ø- and ə|a-root subjunctives can hardly be explained without recourse to analogical spread from one category to the other. Since the gradation of the ə|Ø-root subjunctive can be accounted for including its stem pattern, whereas that of the ə|a-root subjunctive cannot, the spread must have proceeded from the former to the latter. In this section, I will try to give an answer to the question how and why this transfer may have happened.

First of all, such a transfer was phonologically possible. It is usually said that the *e* : ə gradation of the ə|Ø-root subjunctive must show reflexes of Proto-Indo-European **o* and Ø grade because there is no initial palatalisation. As shown in 4.5.3 (p 408), the *e* : ə gradation in the Tocharian *s*-preterite reflects pre-Tocharian **ē* and **a* grade, i.e., projected to Proto-Indo-European, **ē* and Ø grade. If the same grades are assumed for the ə|Ø-root subjunctive, no more than simple levelling of the unpalatalised initial is needed to account for the *e* : ə gradation *without* initial palatalisation. Phonologically, a transfer of this gradation to ə|a-roots needs no further patchwork. It is the most economical to assume that the unpalatalised initial was levelled in the

$\partial|\emptyset$ -subjunctive while the gradation type spread to $\partial|a$ -roots only afterwards, and this is what I think happened. However, even if one had to assume that the gradation transfer preceded the palatalisation levelling, the latter could have taken place independently in the two grading subjunctives.

An important matter is why the gradation type should have spread to exactly the category where we find it. Here I think the answer must be sought in a combination of morphological and semantic properties. As shown by Winter (1980a), *na*-presents and the corresponding grading subjunctives, including subjunctives with initial accent, are predominantly transitive. The same has been claimed for *s*-presents by Hackstein (1995). Of course, *s*-presents do not only combine with grading root subjunctives, but also with ∂/e -subjunctives, yet both types are predominantly transitive: although, e.g. *plaw*- ‘glide’ is intransitive, most others are transitive indeed. Thus, the semantic link between the two root-subjunctives may have been transitivity. The importance of this semantic property in the Tocharian verbal system has been amply demonstrated by Winter in the article referred to above; consequently, it is very plausible that certain regularisations have taken place on the basis of this feature.

Morphologically, the two types are closely connected as well: they are both root subjunctives, the only difference being the root type, i.e. $x|\emptyset$ or $x|a$. Although this is a clear formal link between the two categories, it is not exclusive: *e*- and *o*-presents also form root subjunctives. Why these root subjunctives did not shift to the same grading type at first (the spread of the grading type in Tocharian A is clearly secondary compared to its restricted distribution in Tocharian B) may be due to one or more of several reasons: they belong to a different morphological type, with different presents and slightly different preterites; they are intransitive instead of transitive; and they are recent.

Although *e*- and *o*-presents are commonly termed “base verbs” or “Grundverbe”, they are secondarily derived intransitives, at least for a large part (Winter e.g. 1961: 92; 1990c: 2535). This must be the reason why they have no initial palatalisation in the preterite and no gradation in the subjunctive, as convincingly argued by Kim (2009). Winter observed that transitive root preterites have initial palatalisation whereas intransitive ones have not, while transitive root subjunctives have gradation and initial accent, unlike intransitive ones (1980a). In itself correct, this formulation is a reversal of what happened historically: as recent creations, *e*- and *o*-presents lacked these morphological distinctions, and because they were intransitive, those morphological distinctions could be reanalysed as markers of transitivity. Thus, *e*- and *o*-presents have no grading subjunctive because their subjunctives are secondary. Conversely, gradation spread from $\partial|\emptyset$ -root subjunctives to $\partial|a$ -root subjunctives at an earlier stage, when it was still a productive marker. Only after the break-up of Proto-Tocharian, the grading type was further generalised in Tocharian A, reaching the bulk of derived intransitives as well (on isolated instances of the same development in Tocharian B, see 4.6.8, p 447); however, the initial palatalisation of the root preterite remained restricted to its original domain, so that we

find intransitive grading preterite-subjunctives without initial palatalisation, like TA 3sg.sbj. *kalkaṣ* ‘(s)he will go’, 3sg.prt. *kälk* ‘(s)he went’.

The question *why* the grading subjunctive spread to ∂ |a-roots reaches the limits of the verifiable. The essential point is whether the grading subjunctive replaced another type of subjunctive or not, which touches upon the prehistory of the Tocharian subjunctive as such. If there was no subjunctive before, the grading subjunctive must have been introduced on the basis of the root preterite. For some reason, a distinction between present and subjunctive was deemed necessary also for this category – since the type spread from ∂ |Ø-roots, we may assume that the category “subjunctive” already existed. If there was a subjunctive before, the problem is that we do not know what it looked like. The simplest assumption is that it was a preterite stem with present endings, or, in other words, a second present from a shorter stem; which is, in fact, how the Tocharian subjunctive can still be described. It is this assumption that I will elaborate upon below, realising that it is just one of many possibilities.

With *tarka-* ‘let go’ as an example, the Proto-Tocharian inflexion of the ∂ |a-root preterite was *carka-* in the active singular and *tarka-* in the middle, as attested by both languages. They diverge in the active plural: we find {*carká-*} in Tocharian B, and {*tarka-*} in A. As argued below, the Proto-Tocharian active plural stem form was *tarka-*. If the stems of the “second present” and the preterite were identical, the paradigms could have been:

	act.sg.	prs.	prt.	act.pl.	prs.	prt.	mid.sg.	prs.	prt.	mid.pl.	prs.	prt.
1	<i>carka-</i>	<i>m</i>	<i>wa</i>	<i>tarka-</i>	<i>mə?</i>	<i>mə</i>	<i>tarka-</i>	<i>mar</i>	<i>ay</i>	<i>tarká-</i>	<i>mtr</i>	<i>mte</i>
2	<i>carka-</i>	Ø	<i>sta</i>	<i>tarka-</i>	<i>cə</i>	<i>sə</i>	<i>tarka-</i>	<i>tar</i>	<i>tay</i>	<i>tarka-</i>	<i>cwər</i>	<i>cwə</i>
3	<i>carka-</i>	Ø	Ø	<i>tarka-</i>	<i>n</i>	<i>r</i>	<i>tarka-</i>	<i>tr</i>	<i>te</i>	<i>tarka-</i>	<i>ntr</i>	<i>nte</i>

If such or similar paradigms ever existed, they contained few internal problems: most forms are neatly distinct because of the endings. Of course one might further speculate that quite a few of the middle endings were identical at an earlier stage because they show the results of heavy restructurings (see 4.2.3-4.2.5, p 349), but the introduction of the grading subjunctive stem would never have remedied that, as it was not different from the preterite at all in the middle (the same is true of the possibly identical 1pl. *tarkamə*). The only subset where the grading subjunctive could have been useful is the active singular, since this is where it made the subjunctive different from the preterite. Indeed, we find some homophonous forms there: the 3sg. subjunctive and preterite and the 2sg. subjunctive. The latter may have received its ending *-t* at an early stage, as it is attested in both Tocharian A and B, but the first two must have been homophonous at any rate, since the Ø-ending is still attested in the Tocharian B optative. Possibly, the ambiguity in the 3sg. was sufficient reason, as it is the most frequent and strongest form. Here, the introduction of gradation could have had a high remedial impact: the difference between a 3sg.sbj. *terka*-Ø and a 3sg.prt. *carka*-Ø would have been sufficiently marked.

4.6.7 PRETERITE PLURAL

An old problem of Tocharian historical grammar is the stem variant of the preterite plural forms of Tocharian A *ä|ā*-root presents. Instead of the expected *ä*-grade we find *a*-grade without preceding palatalisation, i.e. *krasar* ‘they knew’ vs TB *šärsäre*.⁸⁰⁸ Evidently, a simple Tocharian B paradigm without gradation and with palatalisation throughout the active, i.e. 3sg. *šarsa* {*šärsá*-Ø} and 3pl. *šärsäre* {*šärsá*-re}, could hardly have been replaced by a paradigm like that in Tocharian A with 3sg. *šärs* and 3pl. *krasar*, even if there had been a good model: there is simply no motivation for such an irregularisation. On the other hand, most scholars are reluctant to project the Tocharian A forms back to the proto-language (cf e.g. Pedersen 1941: 185), since this would ultimately result in reconstructing Proto-Indo-European *o*-grade without comparative evidence.

In my view, the correct solution has been put forward by Jasanoff (1983: 55-57; accepted by Pinault 1989: 147-148). According to him, the Tocharian A pl. stem is secondary, analogically formed after the singular of the accompanying grading sub-junctive: sbj.sg. *krasa*-, sbj.pl. *kräsā*- : prt.sg. *kräsā*-, prt.pl. X, X = *krasa*-. I suppose that the reason why Jasanoff’s explanation has not found general acceptance is on the one hand that the kind of analogy proposed was considered unusual, and on the other that a good motivation was wanting. Although I cannot improve on the model as such, a motivation for Jasanoff’s development can actually be offered.

As I have shown in 2.5.2 (p 56), the synchronic functional load of the prt. stem form *krasa*- is very high: it distinguishes its 1pl. *krasamäs* from the 1pl.sbj. *kärsāmäs*, its 2pl. *krasas* from the pl.ipv. *pkärsäs*, and its 3pl. *krasar* from the sg.mid.ipv. *pkärsār*. The essence of my argument is simple: since it solves so many potential problems through the prevention of stem merger, this stem variant is likely to be a solution to these problems. The forms it would merge with all have the stem variant *kräsā*- (surfacing as *kärsā*-), which is exactly the form we would expect in the plural of the preterite on etymological grounds. Since on the one hand it could not have had the same solution value if the stem form of the plural had been *šärsā*- before, and, on the other, there had been no need whatsoever to replace a stem like *šärsā*-, the pre-form of the preterite plural must have been of the type *kräsā*- or *kärsā*-. Thus, the number of preterite stem variants in Proto-Tocharian is reduced to two, as the same *kärsā*- was already attested for the middle paradigm; the spread of the palatalised initial in Tocharian B is of course trivial.

Although it is not completely excluded that the spread of the palatalised variant in Tocharian B occurred after the introduction of the full grade form, in this case *karsá*- or the like, such a scenario is extremely implausible. First of all, such a

⁸⁰⁸ Although Sieg, Siegling and Schulze (1931: 368) list only 3pl. forms, with one 2pl. form restored with a question mark, *tsaramäs* A347a2 proves that the 1pl. and 2pl. were parallel to the 3pl., not to the singular (Schmidt 1974: 50-51; Malzahn 2009: 64).

scenario contains *two* heavy restructurings instead of only one. Second, Tocharian B seems to have been much more tolerant towards ambiguous forms than Tocharian A (see 2.5.2, p 56) so that one may ask whether such a reparation of contrasts should have taken place altogether. Third, the subjunctive and the preterite are in Tocharian B also distinguished by a difference in initial accent for the subjunctive stem and suffix accent for the preterite stem (although admittedly in some cases the accent alone appears not to be sufficiently distinctive). Therefore, the *a*-grade of the Tocharian A plural cannot be used to explain phenomena also found in Tocharian B; at least such explanations should address the problem of the age of that stem variant: in the end, it is definitely secondary, as already shown by Jasanoff.

4.6.8 E-PRESENTS

Occasionally, we find grading subjunctives next to *e*-presents, apparently a deviation from the more widespread pattern of grading subjunctives next to nasal presents. Whereas the number of instances is small in Tocharian B, there are quite a number of verbs with this pattern in Tocharian A, if grading preterites are taken as an indication of grading subjunctives, too.

In Tocharian B, we find *srəwka*- ‘die’ with a present {*srəwké*-} and a grading subjunctive {*sr^a/əwka*-}; *təŋka*- ‘rise’ with a present {*t^əenke*-} and a grading subjunctive {*t^{sá}/əŋka*-}; *ləwa*- ‘send’ with a present {*ləwe*-} and a grading subjunctive {*l^á/əwa*-}; and *mərša*- ‘forget’ with a present {*mərsé*-} and a grading subjunctive {*m^á/ərsa*-}. As these verbs all have exceptional initial accent in the subjunctive, we could perhaps add *nəwa*- ‘roar’ with a present {*nəwe*-} and a subjunctive {*n^áwa*-}. In 4.7.4 (p 462), I argue that the *e*-grade *e*-presents {*nəwe*-}, {*ləwe*-} and {*t^əenke*-} might belong or have come to belong to the *klap*-type, their *e*-present being a secondary replacement of an earlier *ə*/*e*-present.

We are then left with *mərša*- ‘forget’ and *srəwka*- ‘die’. The verb for ‘forget’ is a striking member of the *e*-present class because it is transitive, unlike most other *e*-presents. While Winter dismisses *mərsé*- as an innovation for the nasal present attested with Tocharian A 3pl. *märsneñc* (1980a: 430), he has correctly shown that it is the Tocharian B form that is strange, so that one must have a good reason to take it as an innovation; no such reason is offered by Winter. Rather, we must credit Klingenschmitt (1982: 127) for having observed that the Tocharian A form (a hapax legomenon) is in fact uncertain, and for pointing out that the Armenian nasal present *moṙanam* ‘forget’ is secondary (l.c.), contrary to what Winter argues. The only way out seems to assume that *mərsé*- owes its *e*-suffix to its semantic “middle” properties: just like ‘break’, ‘forget’ denotes an event that takes place all by itself, without influence of an agent.⁸⁰⁹

⁸⁰⁹ This was argued by Ilja Seržants (now Bergen, Norway) in a lecture at the 2008 Fachtagung of the Indogermanische Gesellschaft in Salzburg.

Thus, there is nothing “wrong” with the *e*-presents of *marsa*- ‘forget’ and *srəwka*- ‘die’: there is no reason to assume that they represent recent innovations. Consequently, we are forced to take their grading subjunctives as analogical after the regular transitive grading subjunctive. Perhaps it was first a transitive verb like ‘forget’ that was affected by this change, while *srəwka*- followed.

In Tocharian A, the situation is different altogether. Whereas initial palatalisation seems to correlate systematically with transitive nasal presents (Winter 1980a), gradation has spread beyond its original domain. Not only has the full grade spread to the preterite plural, the grading type has become the standard *ä|ā*-root preterite-subjunctive type, on the evidence of such a large number of intransitive *a*-present verbs: *träyk*- ‘be confused’, *ṭälp*- ‘be freed’, *mläwsk*- ‘escape’, *läyt*- ‘fall off’, *wätk*- ‘be separated’, *wäyk*- ‘dwindle’, *säyk*- ‘overflow’, *sätk*- ‘spread’, *spänt*- ‘trust’.

4.6.9 *NASK*^ʔ/_E-PRESENTS

Whereas Sieg, Siegling and Schulze had kept Tocharian A *näsä*/_{sa}-formations (1931: 357-358, class 8) strictly separate from *näsä*/_{sa}-presents (p 361-362, class 10), they are heaped together in the *Elementarbuch* (Krause and Thomas 1960: 214). This is extremely unfortunate because they are not only different phonologically: their stem patterns have nothing in common either. *nask*^ʔ/_e-presents (to take a Proto-Tocharian notation) and the frequent *na*-subjunctives beside them are often adduced to prove that many Tocharian subjunctives are old presents, with new presents created next to them (e.g. Jasanoff 2003: 161). In itself the observation is correct, but it is a serious misrepresentation of the reality of Tocharian verbal patterning: all these verbs have something strange. In this way, the verbs in question give a salient warning that their pattern is recent; indeed, there are so many irregularities that the existence of the whole type can be doubted.

The reason why the type arose was not the lack of an original subjunctive, or the relegation of the present to the subjunctive because of a newly created present. The essence is that there were troubles with the regular type, which called for the recharacterisation of the present, the subjunctive, or both.

In three verbs, the irregularities can be claimed to be of Proto-Tocharian date: TB *pəkna*^{ssə}/_{ske}- and TA *päknā*^{sa}/_{šä}- ‘intend’, TB *yəknā*^{ssə}/_{ske}- and TA *yäknā*^{sa}/_{šä}- ‘be careless’, and TB *yənmā*^{ssə}/_{ske}- and TA *yomnā*^{sa}/_{šä}- ‘reach’. All these verbs have remarkable *na*-subjunctives. ‘reach’ is a special case because in that verb almost everything is irregular; it is discussed in detail in 4.3.7 (p 372). The other two, *pəkna*- and *yəkna*-, do not only rhyme, they are also the only two verbs with the aberrant *nāsi*-optative in Tocharian A. I do not know how these two verbs acquired a *na*-subjunctive and the corresponding present, but I suppose that since they form a pair, one of the two verbs is analogical after the other. In order to account for the fact that the *na*-suffix came to adopt subjunctive function, I would assume that the verbs were originally present-subjunctives that shifted to the *na*-present class. As the need was felt to split the present-subjunctive in a present and a subjunctive, the *na*-formation

became the subjunctive and a new present was created beside it. The reasons for the shift to the *na*-class are unclear to me; the best I can think of is adaptation to *pəlskna*- ‘think’, which is formally and semantically close to *pəkna*-. From there, *yəkna*- could have been affected. I consider it less likely that the two presents *pəkna*- and *yəkna*- preserve something old: the former has only a doubtful etymology in PIE **spek-* ‘watch’ (Adams 1999: 369; LIV2: 575-576), the latter a reasonable one in Lat. *egeō* ‘lack’, which reflects PIE **h₁e^(g)(H)-* (Adams 1999: 494; LIV2: 231), but neither of them offers an explanation for the peculiar stem formation of the Tocharian verbs.

In Tocharian A there is one more example of uncertain value: *yärnā^{ssə}/sä-* ‘bathe’. A nasal formation to this verb seems ascertained by the fragmentary line *sāt wäryo yärnā*/// THT1154a3 ‘wash with hot water’; the only other form is inf. *yä(rn)āssi* A227/8a2, where exactly the *nā^{ssə}/sa-* suffix is restored. However, there are not so many possibilities, as a form with a single *r* would have been subject to syncope (***yrāssi*), and it is very doubtful whether we should posit a form with double *rr* if we have no parallels for that cluster, while we actually have *yärnā*/// attested (pace Hackstein 1995: 318). The solid etymology with Hittite *ārri* ‘wash’ (which together with the Tocharian points to **h₁erh₁-*) offers no explanation for the possible nasal formation of *yärā*-.

In Tocharian B, we further find the following instances: *kərnā^{ssə}/ske-* ‘deal’, *kəllā^{ssə}/ske-* ‘bring’, and perhaps *tərrā^{ssə}/ske-* ‘appease’ (yet another probable case, *məllā^{ssə}/ske-* ‘oppress’, is discussed in 4.7.1, p 455). In all verbs, the *na^{ssə}/ske-* present was formed when the root or the suffix of the original formation became obscured.

In all non-present stems, Tocharian B *kəla-* (prs. *kəlā^{ssə}/ske-*) corresponds perfectly to Tocharian A *kälā-* (prs. *källā-*), a regular *na*-present with grading subjunctive and so on. Both languages show assimilation of the cluster *ln* in the *na*-present, but apparently the geminate could function as a present marker in Tocharian A, whereas the present needed to be recharacterised in Tocharian B. The obvious present marker was *-ssə/ske-* and the *ll*-geminate was downgraded to an irregularity without specific morphological function.

With *tərrā^{ssə}/ske-* and *məllā^{ssə}/ske-*, the same principle has probably been at work, but here exact Tocharian A correspondents are unfortunately lacking. If the meaning of *tərrā^{ssə}/ske-* is approximately correct, it may be related to Hitt. *taranzi* ‘they speak’ and Lith. *tariù, taryti/ taṛti* ‘say’, Russ. *torotórit* ‘prattle’ and go back to a PIE **ter-* (LIV2: 630; Vasmer 1953-58: III, 126); unfortunately, the Tocharian nasal formation has no parallels.

In the case of *kərnā^{ssə}/ske-*, it was not the suffix that was obscured, but the root, cf the prt. *kəryā-*, the prt.ptc. *kəryau*, and e.g. *kəryorttau* ‘merchant’ (TA *kuryart* ‘id’). The lack of *y* in the prs. *kərnā^{ssə}/ske-* and the sbj. *kərnā-* shows that it was somehow lost between *r* and *n*; probably, the original subjunctive was **kərya-* (or even grading **kārya-* ~ **kərya-*) with a present *kərna-*. The preference to match the roots of both formations led to the spread of the present root *kərna-* (with its present-*n*) to the subjunctive, which called for a new present *kərnā^{ssə}/ske-*. In any case, the *na*-present reflected in the TB sbj. *kərnā-* is likely to be old, as the nasal present is well attested

in other Indo-European languages: Ved. *krīṇāti* ‘buys’, OIr. *crenaid* ‘id’, OW *prinit* ‘id’ and e.g. ORuss. *krbnju*, *krenju* ‘buy’ all go back to a PIE **k^wri-n(e)-h₂-* (LIV2: 395-396).

To conclude, in spite of the undoubtedly Proto-Tocharian subjunctives **pəkna-* and **yakna-*, the system of *na*-subjunctives and *na^{ssə/ske}*-presents is marginal and secondary at all events. The pattern is no proof of the allegedly secondary character of the Tocharian present system as such. If anything, it proves that on the synchronic level the contrast between the present and the subjunctive was essential: it could be repaired or recharacterised even at the cost of the match between the subjunctive and the preterite stem.

4.6.10 OTHER PRESENTS

There are two classes that seem to have something to do with nasal presents, but synchronically they are clearly different: the derived *ññ^a/e*-presents in Tocharian B and zero *ä|ā*-root presents in Tocharian A. Whereas I have found no systematic treatment of the latter, the former have been discussed in great detail by Hilmarsson (1991b). The reason to discuss the first type here is that it contains a nasal, and, what is much more important, there are some correspondences with regular Tocharian A nasal presents. Inclusion of the second type can only be argued for in an indirect way: it shows some correspondences with Tocharian B *ññ^a/e*-presents, and prt.-sbj. *pāla-* ~ prs. *pāllā-* ‘praise’, which displays a geminate *ll*, probably from *ln*, fits actually only here.

Tocharian B *ññ^a/e*-present

An overview of the relevant Tocharian B type is found in 2.7.9 (p 136); careful and detailed discussions of the pattern and individual forms can be found in Hilmarsson (1991b: 77-82). The verbs in question are: *kask-* ‘scatter’, *klant^s-* ‘sleep’, *naytt-* ‘break down’, *mānt-* ‘destroy’, *māyw-* ‘tremble’, *rās-* ‘stretch’, *wask-* ‘move’, and *təyk-* ‘form’. Whereas *kask-* and *naytt-* have no attested Tocharian A cognate, *klant^s-*, *rās-* and *wask-* correspond to nasal presents: {*klisnā-*} ‘sleep’, {*rāsñā-*} ipf. of ‘pull’, supposing a prs. {*rāsñā-*}, and {*wāsñkā-*} ‘move’. In addition, the prt.ptc. *tsātseku* ‘formed’, cognate of TB *təyk-* ‘form’, could fit a nasal present, but the present is not attested. A clear match to the other Tocharian A type is offered by TB *mānt-*, which corresponds to the Tocharian A prs. {*māntā-*}, as opposed to the prt.-sbj. {*māntā-*}. Whereas the pattern of TB *māyw-* is not completely certain, its Tocharian A cognate prs. {*me-*}, prt.-sbj. probably {*māywā-*} is irregular, as the present shows no *w*.

Although there are only three etymological matches with Tocharian A nasal presents, it is striking that all three end in *-s*. In view of the gradation pattern of *kask-*, we can probably add this verb as well: it shares all relevant characteristics. If we further discard the verbs without Tocharian A cognate, namely *naytt-* and *təyk-*, and leave out *māyw-* because it is irregular, the statistics are clearly in favour of a connection with the nasal presents. Moreover, there is another argument: with

“regular” nasal presents, it was impossible to decide what happened to Tocharian B verbs in *sk*; possibly, they ended up here, for reasons still to be explored.

If this class has indeed started out as a subtype of normal nasal presents, the question is why it came about in the first place, and, naturally, how. In the case of *sk*-roots, there seems to be little wrong with a sequence *snk* or *sənk*, if that was the result of a metathesis of *skn*. However, it is possible that *skn* caused problems because it was *not* subject to metathesis. This is certainly true of some of the other verbs, like *mənt-*, which would certainly have lost its *t* in a combination like *məntna-*; likewise, problems will have arisen in *klənsna-* or *klənt'sna-* and probably in *məywna-*, too. Theoretically, there are many possibilities: in *skn* the *k* may have been lost, which made restoration necessary, one of the *n*'s of *klənsna-* could have been dissimilated, or the *w* may have been lost in *məywna-*. With the small number of examples I dare not formulate sound laws to account for the class shift, but I consider it likely that something of this kind happened.

It is not much easier to pinpoint *how* the class arose. Because of the geminate *ññ*, it is unlikely that the new suffix simply developed out of the original one: there is no reason why, e.g. an *ʔ/e*-suffix should have been added to *na* or some variant of it, and such an extension would not have given the actual present marker. Therefore, the *ññʔ/e*-suffix must have been taken over from somewhere else, probably the *ññʔ/e*-denominatives, to provide a new present, or to mark the actual present in a better way. In this process, the root-final *-a* was apparently lost: we find *kaska-* etc in all stems, except in the present {*kəskəññʔ/e*}. It seems best to see in the disappearance of this *a* an instance of analogical removal; perhaps the *ə* came along with the present suffix. Otherwise, one would have to operate with the loss of *a* by sound change as discussed in 4.4.6 (p 398). The latter solution is problematic because it requires initial accent, e.g. 3pl. *kaskaññen*, whereas the actual accent is *kəskəññen*, which makes it unverifiable.

Tocharian A *ä*|*ā*-root present

The Tocharian *ä*|*ā*-root present is a small category of poorly attested verbs. Whereas the existence of the type is absolutely certain, the appurtenance of several of its members is putative. The class is characterised by root-final *ā* throughout, and a difference between *ä*-grade in the root in the present versus *ā*-grade in the preterite-subjunctive. The verbs that I have assigned to this class (2.6.10, p 115) are prs. {*päywā-*} ~ prt.-sbj. {*päywā-*}* ‘blow’, prs. {*plānkā-*} ~ prt.-sbj. {*plānkā-*}* ‘pinch’, prs. {*māntā-*} ~ prt.-sbj. {*māntā-*} ‘hurt’, prs. {*rāpā-*} ~ prt.-sbj. {*rāpā-*} ‘dig’ (and possibly a homophonous *rāpā-* ‘make music’ next to it), and prs. {*pāllā-*} ~ prt.-sbj. {*pāllā-*} ‘praise’.

Because this type shows a remarkable similarity to the *lyāka*-type, discussed in 4.4.5 (p 395), it is perhaps convenient to point out the differences. In the first place, the *lyāka*-type has a present-subjunctive, whereas this type has a preterite-subjunctive – the make up of the stems is different. Second, the *ā*-grade of the *lyāka*-preterite goes together with initial palatalisation, of which there is no trace here. Third, the

preterite participles are completely different, as root vowel and root-final vowel are *a* in both cases in the *lyāka*-type, but *ā* in both cases in this type. Fourth, whereas there is comparative evidence of nasal presents for this type, the *lyāka*-type has nothing to do with nasal presents at all.

Links with nasal presents are found in a couple of instances: *māntā*- corresponds to Tocharian B *māntāññ^o/e-*, *rāpā*- ‘dig’ corresponds to Tocharian B *rapāna-*, and *pāllā*- has a geminate *ll*, which points to earlier *ln*. Although *pāywā*- shows a remarkable structural similarity to TB *māywa-*, the verbs pattern in partly different ways and their exact relationship is difficult to evaluate. The two remaining verbs *plānkā*- and *rāpā*- ‘make music’ have no Tocharian B cognate and can be left aside for the moment.

Thus, there is a clear comparative link with nasal presents, even though the statistics do not tell much with such a small number of verbs. The idea that the type has something to do with nasal presents is further strengthened by the fact that the explanation of the attested forms is straightforward. A nasal present like **māntnā*- should certainly have become **mānnā*- or **mānā*-, where restoration of the root would have resulted in the attested *māntā*-. For *pāllā*-, the derivation has already been given above: this stem can have developed from **pālnā*- by sound change only. *rāpā*- is a bit more difficult because it concerns a cluster not otherwise known to be problematic in Tocharian A, but on the basis of Tocharian B developments, we may suppose that **rāpnā*- became **rāmnā*- or the like; here, too, reparation of the root must have yielded the attested *rāpā*-. In spite of the lack of comparative evidence, the derivation of *plānkā*- is easy: **plānknā*- could certainly not have survived as such. If the *k* was lost, the result being **plānnā*- or **plānā*-, it is restoration of the root which would again give us the attested present stem.

Although it is irregular synchronically, Tocharian B *pālla*- ‘praise’ fits this type perfectly; it must derive from *pālna*- (on the spread of the *a*-grade, see directly below).

gradation

Peculiar to both the Tocharian B *ññ^o/e-*-presents and the Tocharian A *ālā*-root presents is the widespread *a*-grade outside the present stem. In view of the grading preterite-subjunctive stem of *kask*-, with a subjunctive active singular *kaska*- and *kaska*- for the other subjunctive forms and the whole preterite, it is likely that the type originally followed the normal gradation pattern of nasal presents. In the bulk of the verbs, we find a different pattern, namely *a*-grade in the present and *a*-grade elsewhere. This split must have been caused by the irregular behaviour of the present stem: once that stem was isolated, the other stems were lined up as one non-present stem. This explains the gradation of prs. *māntā*- vs prt.-sbj. *māntā*- in Tocharian A as well as that of prs. *wāskāññ^o/e-* vs prt.-sbj. *waska*- in Tocharian B. The same development must have taken place in ‘write’, where we find prs. TB *pīnkām*, TA *piktrā* vs prt. TB *paika*, TA *pekat*. Here we see that phonological problems in nasal

presents have laid the basis for the creation of completely new types such as the *ä|ā*-root present in Tocharian A.

4.7 *E*-GRADE PRESENTS

In both languages, there are a couple of verbs that form an *ʔ/e*-present with *e*-grade in the root (Tocharian A *a*-grade). The prime interest of these verbs for the study of the subjunctive is this *e*-grade itself, its relationship to initial palatalisation, and the different subjunctive and preterite formations that are found beside it. The relevant verbs display an impressive range of rare morphological alternations and irregularities; in addition, some split-off verbs show that the alternation patterns were felt to be (too) isolated.

In Tocharian B, we can distinguish three main types on the basis of the subjunctive and preterite stems:

- 1) preterite-subjunctive in *-a*, but not formed from the present: the root-final consonant is not palatalised and *e* in the root is affected by *a*-mutation, e.g. prs. *klepʔ/e*- ‘touch’, prt.-sbj. *klapa-*. A subtype with grading preterite-subjunctive is proved by 3sg.sbj. *pānnaṃ* ‘will stretch’ vs prt.ptc. *pānnau**.
- 2) a present-subjunctive with a secondary preterite, attested with certainty only for prs.-sbj. *klewʔʷ/se*- ‘hear’, prt. *klewʔʷá*;
- 3) a *ʔ|Ø*-preterite-subjunctive, e.g. prs. *ceʔʷ/ke*- ‘touch’, sbj. *tʰ/ʔk-*, prt. *teksa-*.

Types 1 and 2 are also found in Tocharian A, but type 3 is not attested with the same patterns; it must be noted, however, that the cognates of the Tocharian B verbs of the third type are poorly attested, so that perhaps the type is not attested by chance.

Type 1 consists of the following verbs (all Tocharian B unless explicitly noted): *klep*- ‘touch’, *tresk*- ‘chew’, *pānn-* ‘stretch’ with TA *pānw-* ‘id’, *mens-* ‘be sad’. Only on the basis of Tocharian A, we can perhaps add *wal-* ‘cover’ (Tocharian B *wala-*), and for structural reasons one could compare Tocharian A *nas-* ‘be’ and its prt.ptc. *nāntsu*, which fits to a preterite **{*nāsā-*} (2.6.9, p 110). The inflexion of TB *mel-* ‘oppress’ and TA *małw-* ‘id’ is not completely clear, but the verb could belong to type 1 because of TB stems *malla-*, which are from another verb synchronically. The addition of *cepy-* ‘tread on’ (?) remains very uncertain.

As remarked above, type 2 is with certainty represented by TB *klews-*, TA *kłos-* ‘hear’ only, but perhaps TB *resk-* ‘flow’ belongs here as well (for TB *šewk-*, see below).

Type 3 is in Tocharian B represented by *klānk-* ‘doubt’, *tāk-* ‘touch’, *tānk-* ‘stop’, and *plātk-* ‘increase, flow out’, and possibly *šewk-* ‘call’. On the basis of its inflexion in Tocharian A, we may further add TB *wās-*, TA *wās-* ‘dress’.

In addition there are some verbs from other classes that share some characteristics with the types discussed here, e.g. TA *sparcwāš* ‘turns’.

Since there are many irregularities and uncertainties in all subtypes, they will be discussed in more detail below.

4.7.1 KLEP-TYPE

**klep-*

Since Adams (1989: 242), the analysis of the Tocharian B verb *klep-* ‘touch’ has become quite straightforward: the present is {klép^ə/e-} in Tocharian B, and the other stems have the base *klapa-*: sbj. {klápa-}, prt. {klapá-}. Next to this verb, there are a couple of other forms that could be related. First of all, *kálp-* ‘steal’ can be compared, if the meanings can be united as ‘lay hand to’ (Adams 1989: 242; 1999: 172). *kálp-* forms an ‘ay-subjunctive’ {kálpáy-}, a derived preterite {kálpəyá-} and a preterite participle *kekalypos* B282a1 without ‘ay-suffix, but with palatalised *l̥*, so that the original shape of the root was perhaps **kálp-* with *l̥* (see also 4.8.1, p 469). On the other hand, a noun *klepe* ‘theft’ shows no palatalisation of *l*. None of the above words has a cognate in Tocharian A, but, as argued by Adams (1989), TB *kálpa-* ‘obtain’ could be related too, which is also very well attested in Tocharian A: *kálpā-*. However, *kálpa-* is a regular *na*-present which provides no new morphological information.

**tep-*

None of the verbs is so uncertain as Tocharian B *tep-*. The only certain forms attested are prs.ptc. *cepyemane* and prs.ger. *ceppile*, which point to a present stem {cepp(ə)y-}. An argument, though hardly sufficient in itself, to add *cepp(ə)y-* to the group of presents under discussion is its *e*-grade. An additional problem is that the meaning is uncertain, probably something like ‘step on’ or ‘take place on’. It was Winter (2001: 134) who saw that Tocharian B *tappa-*, usually glossed ‘consume’ on the basis of Tocharian A *tāpā-* ‘eat’ (in suppletion with *śwā-*), but attested with only one form *tāppom̐*, can hardly mean ‘consume’. However, his solution to connect TB *təp-* ‘proclaim’ (TA *tāp-*) remains difficult as well, as it does not account for the root vocalism of *tāppom̐*, nor for its double *pp*, nor does it semantically make much sense. Perhaps *tappa-* is related *cepp(ə)y-* in some fashion, if the former means ‘take place; appear’ (see also 3.7.5, p 294), the latter could mean ‘take place on’.

**tresk-*

Tocharian B *tresk-* ‘chew’ is attested with only two different forms: a 3sg.prs. *treṣṣām* and a vn *trāskalye*, which point to a prs. {tre^{ssə}/ske-}, a sbj. {trāska-} and a prt. {traská-}*. The stem *traska-* is matched by Tocharian A, where we find a prt.ptc. *tātrā(sku)ṣ* {tā-trāskā-w-} and a 3sg. *trāskaṣ-ām* A4b4, which is probably a subjunctive. The shape of the Tocharian A present is unclear; if it followed a frequent pattern, we could expect e.g. *traskatār** or *trāsāñkās** (see Hackstein 1995: 180).

*nes-

The pattern of TB *nes-*, TA *nas-* is very difficult to assess since it is the suppletive present to TB *taka-*, TA *tākā-* and no fully-fledged verb. However, the Tocharian A suppletion pattern is very unusual, as the preterite participle *nāntsu* is formed from the present root rather than the prt.-sbj. root; the regular preterite participle would probably have been ***tākku* from **tā-tākā-w*. If such a ***tākku* had existed at a certain stage, it might have been replaced because of the *kk* for *tk*, but it is completely unclear why the new form would have been formed from the present, and why according to this rare pattern. The only conclusion can be that *nāntsu* was formed before *nas-* was merged with *tākā-*. Consequently, *nāntsu* need not have been formed to *nas-* directly, but it was probably made on the basis of an intermediate preterite **nāsā-*.

*pənw-

TB *pənn-* ‘stretch’ and TA *pānw-* ‘id’ point to an originally quite regular verb of the *klep*-type with gradation in the subjunctive, but due to sound changes, it was prone to derailments in Tocharian B. In Tocharian A, the present is a regular {pāñwä/a-}, and the 3pl.prt. *panwar* with the prt.ptc. *pānwo* point to a sbj. {pā/āñwä-}, prt. {pā/āñwä-}. In Tocharian B, the subjunctive is also grading: sbj. {pā/āñna-}, prt. {pənnā-}. Problems are found in the present, where we expect {peññ³/e-}, but we find ə-grade in the 3sg. *pāññān-m* B253b2 and the 3pl.ipf. *pāññiyem* AS16.6Bb6. If the uncertain form *piñña* B429a5 is a 3sg.prt., it would show spread – without doubt secondary – of the palatalised *ññ* to the preterite-subjunctive stem (with colouring of ə to *i* before *ññ*). Otherwise it could perhaps be another subjunctive form with ə-grade; in other words, it could be a mistake for *piññam*. Since the ə-grades do not fit a system and there are no indications for grading present stems anywhere else, I suppose that the ə-grade forms are secondary, apparently caused by the confusion resulting from the irregular relationship between the present *peññ-* with *ññ* and the prt.-sbj. *pənnā-* with *nn*.

*məlw-

A verb *məlw-* can only be arrived at through reconstruction. In Tocharian A, we only find a present {məlwä/a-} ‘press’, and in Tocharian B a comparable situation with {məl³/e-} ‘grind’, but in both languages we find forms of other verbs that are obviously related. Useful discussions of the forms of the related verbs are those by Hackstein (1995: 316–317) and Adams (1999: 456–457, 462, 470). It appears that apart from the presents TA {məlwä/a-} ‘press’ and TB {məl³/e-} ‘grind’ above, there is 1) a verb TB *məlla-* a.o. ‘oppress, disdain’ (here I follow Hackstein p 316 rather than

Adams p 457) with a prs. {məllá^{ssə}/ske-}, a sbj. {mállá-},⁸¹⁰ and possibly a prt.ptc. *mamālau*, -aš;⁸¹¹ 2) a derived causative ‘deny, argue’ with a prs. {məllə^{ssə}/ske-},⁸¹² probably matched by *mläsmār* A413b2 ‘I suppress’, which might be from a stem {məllä^{sä}/sa-}.

It is usually assumed that the stems with *ll* reflect a nasal present, but as far as the Tocharian B forms are concerned, older **lw* would probably yield *ll* as well. If so, it is attractive to take *mälla-* as a split-off verb from an original **mälw-*: the present must have been **melw*^ʔ/_e-, while the preterite-subjunctive **mälwa-* may have been of the grading *pənw*-type. The only problem with this assumption is that Tocharian A *mläsmār* can hardly reflect a form with *w* in the root. Perhaps it is not related at all: the context is so fragmentary that it is difficult to exclude that it is rather the causative to *mlamām* etc of another verb ‘overwhelm, be filled with’ (after Adams 1999: 456). In any case, the combination of verb stems with and without root-final -*w* is without inner-Tocharian parallels whatsoever, so that it is economical to derive all stems related to **melw*^ʔ/_e- from exactly that stem.

**mens-*

The verb *mens-* ‘be sad’ is only attested in Tocharian B.⁸¹³ Although the verb fits the type very well, there are some “superfluous” forms that indicate paradigmatic split. The present {men^{sə}/se-} is well attested (often as a translation of Skt. *śocate* ‘is sorrowful’), but – although it does not fit the *klep*-type at all – *meṃṣīmar* AS5Ba1 (Pinault 1990: 61, 65) can hardly be anything else than an optative, among all the optatives in the Udānastotra. Likewise, both a regular subjunctive {mānsa-} and a regular preterite {mansá-} are attested (often with epenthetic *t*, e.g. vn *māmtsalyñe*), but an unexpected *na*-present is found next to it: {mansóna-}. Strictly speaking, therefore, we should set up two verbs: *mansa-* with a *na*-present and *mens-* with an ^ʔ/_e-present-subjunctive. Since no difference in meaning can be established and a split from an original prs. *mens*^ʔ/_e-, sbj.-prt. *mansa-* is easily imaginable, the subjunctive use of {men^{sə}/se-} must be secondary, while the present {mansóna-} can only be a recent creation.

TB *mentsi* ‘sorrow’ is a noun in -*i* derived from the stem *mens-*, parallel to *teki* ‘illness’ from *tək-* ‘touch’ (stem variant *tek-*).

⁸¹⁰ Although the relevant form in B362a7 reads *māl-* (Sieg and Siegling 1953: 237), the presence of a second consonant in the akṣara is ascertained (as they have already indicated) and there is hardly any other option than <ll>.

⁸¹¹ The relevant form in B159b6 reads *m(a)[m]āll[](·)[o](š)* (Sieg and Siegling 1953: 88), but as correctly pointed out by Adams (1999: 456), such a form is unexpected.

⁸¹² For this stem, we would of course expect initial accent, but the forms are difficult to interpret.

⁸¹³ There is a certain likeness with TA *msār* ‘heavy’ and *mäsrats* ‘shy’, but these words cannot be connected on formal grounds, since *mens-* and *mans-* would have yielded ***mes-* and *məns-* would have become ***mis-*; no form with -*ns-* could have become *mäs-*.

*wel-

Although the root is attested in both languages, there is effectively only one Tocharian A form that proves the appurtenance to the type under discussion: *walyänt* A292a7 in (šo)lāraṃ poñcām akmālši mañ walyänt wär(tsi kǎntu).⁸¹⁴ As a part of the Maitreyasamitināṭaka, act 26, this phrase is in Old Uyghur rendered as MayH26.10[=B] b20-22 *yeti otuzunč [b21] keṇ yadvı yılınčga yumşak kop yüz[b22]lüg tilgänin örtgüči tilin körür* ‘27th: he sees his broad, long and soft tongue, that can cover the whole wheel of his face’ (cf Geng, Klimkeit and Laut 1998: 62, 136). Thus, the Tocharian passage can be translated as ‘(the tongue) is broad, covering the whole moon of [his] face untill ...’ (Couvreur 1946: 593). Consequently, *walyänt*, apparently an agent noun, must be from a present stem {wāl-}, rendered by OUy. *örtgüči* ‘covering’.

All other forms are from stems based on *wala-*: Tocharian A with a prt. {wālā-}, presupposing an identical sbj., and Tocharian B with a sbj. {wāla-}, a prt. {wālā-}, and a *na*-present {wālāna-}. Even without considering the *wala*-forms, TA *waly-* would point to an *e*-grade ^ə/_e-present because of its *a*-grade, and the *wala*-forms suggest the *klep*^ə/_e- ~ *klapa*- subtype. In spite of its rudimentary attestation, the Tocharian A verb may still have had this inflexion, whereas it was apparently replaced by the frequent *na*-present type in Tocharian B.

4.7.2 KLEWS-TYPE

As mentioned above, type 2 is ascertained for *klews-* ‘hear’ only. For this verb, a present-subjunctive **klews*^ə/_e- can easily be reconstructed, as Tocharian B has a present-subjunctive. In Tocharian A, a secondary distinct *näsä*/_{sa}-present has been created, but derived forms such as the inf. *klyossi* show that the distinct present was a recent creation. It is unclear why the new present is formed with exactly this suffix, as it is not especially frequent; actually, this present-subjunctive pattern is further only found with ‘come’, prs. {k^wām^{näsä}/_{sa}-} vs {śām^ā/_a-}. Perhaps the transfer was facilitated by the fact that both these verbs lack a “real” preterite, but have only an imperfect: {k^wām^{šā}-}, {k^lošā-}. Further, phonologically difficulties in the more frequent present type *-sä*/_{sa}- may have played their part: this suffix is only very rarely found after *s* or *š*.⁸¹⁵ The *e*-vocalism in the root is only visible in a couple of forms, but nevertheless certain:

- 1) in archaic Tocharian B we find older *eu*-vocalism (Peyrot 2008a: 45);
- 2) the *e*-reduplication in the TB prt.ptc. *keklyauşu* and the *a*-reduplication in TA *kaklyuşu* exclude a PT *au*-diphthong (witness TB *kakraupau*, prt.ptc. of *kraup-* ‘gather’ and TA *kākropu*);

⁸¹⁴ Sieg, Siegling and Schulze (1931: 467) cite a second instance *w(a)ly(ä)nt* A151b2, which is not only reconstructed, but lacks any useful context too.

⁸¹⁵ I could find only *šärsäšt* ‘you let know’, *tsäš* ‘(s)he provides’ and *wärsäš* ‘(s)he breathes’.

- 3) TA *kaklyuṣu* shows reduction of *o* to *u*, which must be from **kekļeṣu* through **kakļauṣu* > **kakļuṣu* (cf *kākropu* from **kakraupau* through **kākrāupau* > **kākraupu*; Winter 1994b: 412-413);
- 4) the privative *enklyauṣätte** shows no *a*-affection (to ***anklyauṣätte*; Hilmarsson 1991a: 110).

kļews- is different from the other verbs because it forms a present-subjunctive and a secondary preterite TB {*kļewšā-*}, TA {*kļoṣā-*}. There is another verb, TB *klawa-* ‘be called’, TA *klāwā-* ‘id’ (TB prs. {*klowo-*}), that is obviously somehow related, but because of the lack of the root-final *s*, *klawa-* cannot be compared with stems such as *klapa-* to *kļep-* directly.

TB *resk-* ‘flow’ is only attested with present forms, so that we cannot be sure of its pattern. It may be parallel to *kļews-*, but in fact type 1 is more frequent, so that perhaps a subjunctive-preterite *raska-* is slightly more likelier than a present-subjunctive *reṣṣā/ske-* and a secondary preterite {*reṣṣā-*}.

4.7.3 TĀK-TYPE

For type 3, I have found no evidence in Tocharian A, whereas in Tocharian B the pattern seems to be quite rigid.

**kawk-*

Although the combination of an ^ʔ/_e-present with *au*-vocalism in the root makes an analysis *šewṣā/ke-* (rather than *šawṣā/ke-*) likely, the appurtenance of *šewk-* ‘call’ to this group has long remained just a possibility. Adams (1999: 180) has ingeniously added *kusi-ñ* S8 (M500.1) b2, which is certainly possible, but hard to prove definitively because the context of that form is not completely clear. If Adams is right, however, *kusi-ñ* can only be the optative to a subjunctive {*k^e/swk-*}, which in turn makes the verb completely parallel to e.g. the verb *tāk-* ‘touch’. Accordingly, we would expect a preterite {*kewk-⁰/sa-*}*.

**kaś-*

The Tocharian B verb *kaś-* ‘extinguish’ is not of the *tāk*-type, but it displays some of its characteristics, which can easily have come about secondarily. Because of its rare subjunctive {*kāśé-*} and the stable *e*-grade in the preterite (3pl.mid. *kessante* B421.1b), *kaś-* certainly belongs to the type *nāk-* ‘perish’ etc. However, that type mostly has a ^ʔ/_{se}-present with *ə*-grade in the root, whereas *kaś-* forms an ^ʔ/_e-present with *e*-grade in the root, parallel to the *tāk*-type. The solution is without doubt that the ^ʔ/_{se}-suffix somehow merged with the root-final *-s* (the original geminate is perhaps preserved in the agent noun *keṣṣeñca* B295a9, although this manuscript has many unexpected geminates). The *e*-grade in the present is probably to be explained in a similar vein: either it was adapted to the *tāk*-type (to which the verb had become identical except for the subjunctive), or it spread from the preterite when the stem pattern had

become obscured because of the change in present class. (TB *käs-* is matched by TA *käs-* of the same meaning, but since the present stem is not attested there, it is of no relevance for this problem.)

**klānk-*

The Tocharian B verb *klānk-* ‘doubt, argue’ has been added to this class by Malzahn (forth.b). As she observes, the 3sg.mid. forms *klyeñktrā* B255a5 and *klyentrā* B254a3 cannot be *e-grade* variants of the subjunctive stem implied by inf. *klānktsi*, vn *klānkālyñe*, since in a grading paradigm the middle always has *a-grade*, and the same is true of the imperfect *klyeñci* AS6Da6.⁸¹⁶ She rightly concludes that this stable *e-grade* points to an *ʔ/e-present*, but her explanation of *klyeñktrā* and *klyentrā* cannot be correct. In an *ʔ/e-present*, we would of course expect palatalisation of the root-final consonant in the 3sg.; Malzahn explains its lack here with a depalatalisation rule before *t* (she expects *klyeñ(k)trā*). Since *k ~ ś* is never subject to depalatalisation before *t*, the two forms should rather be explained as writing errors. Although the manuscript is generally very easy to read, Sieg and Siegling have correctly transliterated *klyeñktrā* B255a5 as <klyeñ[k]trā> (1953: 156) because the second *k* is quite deformed indeed. In fact, it is not much closer to a <k> than to an <ś>, so that we could also read <klyeñ[ś]trā>, which would at the same time account for the bizarre *ñ* instead of *n̄*. Although the *n* of *klyentrā* B254a3 is very difficult to read too – Sieg and Siegling (p 154) transliterate <klye[n]trā> – even a deformed *ś* is excluded; here I have to side with Malzahn, who supposes that this akṣara was damaged or otherwise unclear in the original. Thus, the present must have been {klen^{śa}/_{ke}-}, the subjunctive {kle^e/_{ank}-} (the *e-grade* variant is implied by the *tək*-type inflexion), and the preterite, completely deduced, was probably {klenk-^o/_{sa}-}, which fits to the prt.ptc. *keklañku* THT1500b1 discovered by Malzahn.

The Tocharian A forms inf. *klānkāssi* A454a2 and 1pl.mid.opt. *klānkñimās* A349b2 on the one hand, and the prt.ptc. *klānkoṣ* A395b1 on the other, cannot belong to the same paradigm synchronically. However, all could theoretically replace older formations comparable to those attested in Tocharian B, if these are old at all. *klānko* presupposes a preterite {klānkā-}, which could have been formed after *pānwo* next to 3sg.prs. *pāñwāṣ*. As Hilmarsson suggested (1991b: 71), *klānkñimās* could replace the root subjunctive found in Tocharian B, and *klānkāssi* could be from a derived causative, or match *klānkñimās* and a corresponding *s*-preterite (as must be deduced for Tocharian B). However, all three forms follow frequent patterns and they can hardly be used to prove any older pattern for Tocharian A. In any case, a difference between causative (i.e. *klānkāssi* and *klānkñimās*) and non-causative forms (i.e. *klānkoṣ*) is difficult to extract from the texts (likewise, Hilmarsson l.c.).

⁸¹⁶ Pace Malzahn, Schmidt’s restoration *klyeñci(tār)* (1974: 28) is impossible. The next akṣara reads *tu* instead of *tā*, but also the metre proves that *klyeñci* is a complete word, as it stands immediately before the caesura in this 13 syllable pāda (7 | 6).

**tək-*

Tocharian B *tək-* ‘touch’ is well attested; in fact, all relevant stem variants are preserved, which makes the analysis of the whole type in Tocharian B much easier. The present is {*ce^{śo}/ke-*}, the subjunctive {*tē/₃k-*}, the preterite {*tek-Ø/₃a-*} and the preterite participle *teteku** (e.g. abstr. *tetekor*). The situation in Tocharian A is much more complicated: far fewer forms are attested, and they are also more difficult to analyse. The most certain form is *tkālune* ‘touching’, evidently a verbal noun to a stem {*tākā-*}, perhaps to be compared with the subjunctive {*p^a/ānwā-*} etc. The meaning of this noun is secured twice: one attestation (MY2.10b2) in the Maitreyasamitiṇāṭaka is translated by Old Uygur *börtär* MayH2.11b26 ‘touches’, and another (A384b5) translates Skt. *vicāra*, here approximately ‘examination’. A couple of other forms with root shapes *tkāl-* and *tkāl-* probably belong to another verb that means ‘illuminate’ (see especially Pinault forth.). Of the 3pl. *ckeñc*, attested twice (A151b1, A324a1), the meaning cannot be established. If *ckeñc* should be related, it cannot be from the same verb as *tkālune* in a regular way. It is conceivable, however, that it is the result of some kind of paradigmatic split: it seems to combine the palatalised initial of the Tocharian B present with the *ä*-grade of the Tocharian B subjunctive. If it forms one (irregular) verb with *tkālune*, it is more likely to be a present, for instance {*cä^{śä}/ka-*}, than a subjunctive, since otherwise the subjunctive would display the bizarre alternation *cākā- ~ tākā-* within one stem.

**tānk-*

A Proto-Tocharian *tānk-* ‘stop’ can easily be reconstructed because the verb is attested in both languages. However, the *tək-*present is found only in Tocharian B, where we find a present {*cen^{śo}/ke-*}, a grading subjunctive {*tē/₃nk-*}, and a prt.pc. *tānkuweš* NS45a2. Although the prt.ptc. is different from that of *tək-* ‘touch’, i.e. *tānku** instead of ***tetenku*, the preterite was most probably 3sg. *tenksa**, 3pl. *tenkar**. This deduced preterite has a perfect match in Tocharian A, where 3pl. *cañkār* proves a prt. {*cank-Ø/₃a-*}, whereas the TB subjunctive has an exact parallel in the root subjunctive {*tānk-*} required by the vn *tānklune* and the privative *atānkat*, clearly archaic vis-à-vis the productive *nä/₃a-*subjunctive attested with 3sg. *tānkn(ä)š* A302a1. However, the Tocharian A present {*tānk^{śä}/sa-*}, regular compared to the other stems, deviates from the TB {*cen^{śo}/ke-*} mentioned above.

In sum, the two verbs clearly have the same origin, but the Tocharian B present is not matched by Tocharian A. If the Tocharian B is original, replacement in Tocharian A would be easy to account for, exactly because it follows the productive *s*-present + *s*-preterite pattern.

**platk-*

Although only relatively few forms are attested, the *tək*-pattern can be ascertained for Tocharian B *platk-* ‘increase, be much’,⁸¹⁷ whereas in Tocharian A only the prt.ptc. *paplätku* is attested, which fits to an *s*-present + *s*-preterite pattern. The Tocharian B present is attested with only one form, the prs.ptc. *plyetkemanē* B183b4, which proves a stem {pl^{ccə}/tkē-} because of the palatalised *l̥*; the subjunctive is {pl^ə/tk-} on the evidence of 3sg. *šletkäṃ* (for *pletkäṃ*) B591b6, and 3pl.opt. *placyeṃ* Pe2b6, matched by a prt. {pletk-^o/sa-} with 3pl. *pletkar-c* S8b2 (=S8a4?) and a prt.ptc. *plätku, plätkwēs*.

**wəs-*

Proto-Tocharian *wəs-* ‘dress’ can be added on the basis of the *a*-grade in the Tocharian A present, attested in prs.ger. *wašlam* A2a4 and the inf. *wassi* MY3.6a3 (Schmidt 1999: 283), which require a present stem {wa^{sä}/sa-}.⁸¹⁸ The preterite *wā-* and the optative *wsi-* point to a preterite-subjunctive {wäsā-}, whereas the prt.ptc. *wasu* apparently finds its match only in *walu* ‘died’ to the *s*-preterite 3sg. *wlās* etc. As the preterite is only attested with middle forms, it is possible that it “hides” an *s*-preterite, i.e. the 3sg.act. *could theoretically* (since the verb is middle only) have been ***wasās* (like 3sg.act. *casās* ‘(s)he put’ vs 3sg.mid. *tsāt*).

Its obvious Tocharian B cognate *wəs-* is irregular: the subjunctive, preterite and preterite participle are formed from a root *wəs-*, but the present is {yə^{ssə}/ske-}. The subjunctive is {wəs-} on the basis of 3sg.mid. *wasträ* NS95b1 and the inf. *wastsi*; the preterite is {wəs-^o/sa-} with a 3sg.mid. *wässäte* B107b4⁸¹⁹ and a corresponding prt.ptc. *ausu* from **we-wəs(ə)w*. The present forms are 3pl.mid. *yäskemträ* THT1105a1, 3sg.ipf.mid. *yäššitär* AS6Ba6, and prs.ger. *yäšä(lle)* B320b4, which point to the present stem {yə^{ssə}/ske-} mentioned above. The only way to unify the present and the other stems is to assume that the ^{ssə}/ske-suffix of the present obscured the final -s of the root, i.e. {yə(sə)^{ssə}/ske-}. Although it is conceivable that the ^{ssə}/ske-suffix was added to recharacterise the present after it had become difficult to recognise because of the initial palatalisation of *w* to *y*, it is not clear how the different root grades should be explained: in Tocharian A, we find *a*-grade, which would go together well with initial palatalisation, but for Tocharian B we have to assume that *ə*-grade was generalised throughout *without* restoration of the initial. The original root grade might have been preserved in the word *yesti* ‘garment’, discovered by Malzahn

⁸¹⁷ This meaning accounts best for the attested passages. Moreover, it is in line with the OUy. gloss *artu(r)sar* ‘if he prolongs’ deciphered by Maue (forth.), after a manuscript joint of Hirotooshi Ogihara (Paris), which has yielded *pläkkätär* B331a2.

⁸¹⁸ Thus, pace Winter (1977: 143), there is no reason to emend *wašlam* to **wäšlam*.

⁸¹⁹ An alleged 3pl. *wäššäre* IT130b4, which did not fit the pattern at all (cf e.g. Schmidt 1974: 28; Winter 1977: 143), was a misreading for *näššäre* (also by me; I have corrected the reading in the 2010 third version of my edition; see Peyrot 2007a: №130).

(2003). While *yesti* evidently requires a preform **wéstay*, a suffix **tay* is not found elsewhere in Tocharian, which supports Malzahn's direct connection of *yesti* with Lat. *vestis* (in purely Tocharian terms we would rather have expected a ***yestsī*, later replaced by *wastsī*). Nevertheless, it is possible that the root grade *e* of the verb influenced the noun if the latter was originally **wástay* or the like.

In sum, I would reconstruct a subjunctive-preterite stem *was-* for Proto-Tocharian, which may have been parallel to the *tak*-type, but because it is middle only, the *e*-grade forms are not there. The present was probably *wes'ə/e-*, with full grade throughout on the basis of the persistent *a*-grade in Tocharian A (also in forms which have *ä*-grade in grading stems). This requires the assumption that Tocharian B has not only recharacterised the present with a *ssə/ske*-suffix, but also eliminated the expected *e*-grade in the verb. Perhaps the original *e*-grade is preserved in the isolated noun *yesti* 'garment'.

4.7.4 SPARCWŠ-TYPE

A number of forms from Tocharian B *e*- and *o*-presents and Tocharian A *a*-presents display patterns similar to the *klep*-type. I term this subtype the "*sparcwš*-type" because Tocharian A *spartw-* 'turn' shows clear remnants of the *klep*-type. In Tocharian B, we find a regular sbj. {spártta-} and prt. {sparttá-} with a prs. {sportto-}, but in Tocharian A the "normal" preterite-subjunctive {spārtwā-} is matched by an irregular present {sparcwa-} with root-final palatalisation. On top of this, there is one active form, the 3sg. *sparcwš-ām* A253b1, next to the less irregular 3sg.mid. *sparcwaträ* etc. Since the root gradation pattern of the *klep*-type is exactly parallel to that of the *a*-presents with *a*-grade in the root, namely prs. *a*, prt.-sbj. *ā*, the root-final palatalisation is a strong indication for older *klep*-type inflexion.

If we assume older *klep*-type inflexion for TA *spartw-*, the present must at a certain stage have been alternating between an *ä*-variant *sparcwā-* and an *a*-variant *spartwa-*. However, parallel to what must have happened to *malw-* and *pañw-*, the untypical alternation of the first consonant *t* ~ *c* of a cluster ending in unpalatalisable *w* was eliminated to reduce the alternation to the suffix vowel: *sparcwā-* ~ *sparcwa-*. Perhaps at this point, or perhaps when the medial *a* of *sparcwa*-forms became weakened to *ä* before heavy syllables, this alternation was eliminated as well, so that the verb became part of the Tocharian A *a_a* class (corresponding to Tocharian B *o*-presents). For the other stems, no adaptation was needed, since both types would have *spārtwā-* (i.e. *spārtwa-* after weakening). Whether we expect initial palatalisation, i.e. *sparcwāš*, is not fully clear, but if so, it could have been removed analogically at any point.

For Tocharian B, there are no irregularities in the inflexion of *spartta-* itself, and, consequently, no indications for an originally different type of inflexion. However, with the information from Tocharian A, it can be explained quite easily. If we assume that the present originally had the variants **spertw'ə-* (at first probably **spertwā-*, later **spert'wā-*) and **spertwe-*, this would certainly have yielded some-

thing irregular, perhaps **sperccə-* ~ **sperto-* (see Peyrot forth.a; Penney 1978: 79). It is then easy to imagine introduction of the root-final *tt* < *tw* from the subjunctive-preterite *spartta-* < **spartwa-*. I do not think that the *e* of the present could somehow have been affected by the following *w* to become *o* (pace Lubotsky 1985: 7), but with the *o* in the suffix generalised, the verb could only end up as an *o*-present, the root vocalism being adapted accordingly.

Additional evidence for this course of events is offered by the causative, which displays quite a number of $\partial|x$ -features. Had TB *spartta-* been an *a|a*-root, the causative should have been prs.-sbj. {spárttə^{ssə}/ske-}, prt. {spárttəssa-}, prt.ptc. *paspárttəssu*. Instead, we find a whole series of $\partial|x$ -forms: a prt. {spyárta-}, prt.ptc. *pešpirttu*, a priv. *ešpirtatte*, and a prs.-sbj. with variation between *sp-* and *šp-*, where the first has *a*-vocalism in the root, and the latter probably ∂ -grade, as Malzahn has shown: {spartə^{ssə}/ske-} and {špərtə^{ssə}/ske-}. All these forms point to an $\partial|\emptyset$ -root, which can only be derived from a base verb with an $\partial|a$ -root. In Tocharian A, the causative is largely regular, except for a 3sg.prt. *saspärtu* A357.2, marked with a “sic” in Sieg, Siegling and Schulze (1931: 480); their remark must concern the vocalism, which is characteristic of an $\partial|x$ -root instead.⁸²⁰

With this new analysis of the vocalism and stem patterns of the verb, there is no reason any longer to derive it from the noun reflected by TB *spertte* ‘function’ and TA *spartu* ‘curl’, which are probably formed from the verb instead (pace Adams 1999: 716).

None of the other possible verbs in this category offer so many and clear indications as TB *spartta-*, TA *spärtwā-*, but with the latter as a parallel, some can receive better explanations indeed.

Tocharian B

On the basis of their deviant root vocalism, three Tocharian B verbs with *e*-presents may be considered as possible parallels to *spartta-*: *nəwa-* ‘roar’ with prs. {ñewe-}, *ləwa-* ‘send’ with prs. {lewe-}, and *tənka-* ‘arise’ with prs. {t'enke-}. Additionally, {ñewe-} and {lewe-} display unexpected initial palatalisation, which may structurally be assumed for {t'enke-} with an unpalatalisable *t^s*- (2.5.4, p 73; see also Winter 1988: 218). In view of the root-final *-w* in the first two verbs, it is tempting to look for a phonological condition. If both verbs conformed to the *klep*-type at a certain stage, we expect this *w* to have yielded irregularities in Pre-Tocharian B, e.g. *e*-variants **ñewe-* and **lewe-* vs ∂ -variants **ñeyə-* and **leyə-* from **ñewə-* and **lewə-*, respectively. It is conceivable that the *e*-variant forms were generalised to restore the root-

⁸²⁰ In a similar way, Kortlandt (apud Lubotsky 1985: 7) derives the class marker *o* of the whole *o*-present class from an element *-w-* followed by the *e*-suffix of the *e*-presents (see also footnote 831). As I have shown above, TA *sparcwatär*, which figures prominently in his argumentation, cannot be equated with the other verbs of the *o*-class because it has a deviant ending *-š*, deviant medial palatalisation, and deviant $\ddot{a}$ -grade root forms.

final *w*, which automatically made them end up as *e*-presents (with the obligatory middle inflexion). However, such an explanation for a transfer of *tʰenke*- from the *klep*-type to the *e*-present is not available, as no difficulties would have arisen from a stem {*tʰen*^ś/_{ke}-}. Tocharian A is of no great help, as *nəwa*- and *tʰənka*- have no cognate there, and the present of *lāwā*- (~ TB *ləwa*-) was probably {*lāwnā*-} instead of **{*lāwa*-}.

Tocharian A

In Tocharian A, three candidate verbs are found, which are structurally comparable to TB *tʰənka*-, although the latter is not attested in Tocharian A. The verbs in question start with *tʰ*- as well, but seem to have no phonological conditioning at the end of the root: *tʰāmā*- ‘grow’ with prs. {*śamā*-}, *tʰālpā*- ‘be redeemed’ with prs. {*śalpā*-}, and prs. {*śalcā*-}, possibly related to TB *tʰalta*- ‘consume’. Since the pattern of the latter verb in Tocharian A is not known, it will not be considered below ({*śertā*-} next to *tʰārtā*- ‘weep’ might also belong here, but the relationship between the two stems is very difficult to understand).

Just as for Tocharian B *tʰenke*-, no ready phonological solution derives the Tocharian A *tʰ*-verbs from *klep*-type predecessors, but it can hardly be coincidental that we have *tʰ* once in Tocharian B, and at least two, possibly four times in Tocharian A. The only phonological difficulty with an ^ʼ*ā*/_a-present we could expect is the disappearance of the palatalisation after *p* and *m*, but this phenomenon is so frequent among ^ʼ*ā*/_a-presents that it can hardly have played a decisive role. If *śalca*- {*śalcā*-} is of the same type, it offers strong evidence because of its root-final palatalisation, of course, but at this point I see no better solution than to suggest that the other verbs were added analogically after it.

4.7.5 DIACHRONIC NOTES

In the preceding, I have treated *e*-grade presents as if they formed a coherent category, albeit with three subcategories, but they are certainly of diverse origin. Below, I will only indicate some of the possible origins, and suggest paths of analogy along the lines of the shallow reconstruction approach of sections 4.7.1-4.7.4 (p 454).

Obviously, the largest problem is the presence or absence of initial palatalisation: in principle, a stem like PT **nes*- without initial palatalisation must reflect old **o*-grade, whereas e.g. PT **kl̥ews*- with initial palatalisation must reflect old **ē*-grade. Although the initial palatalisation may have been lost (by sound law) in one instance or another, whereas it may occasionally have been removed (by analogy) elsewhere, this is probably in broad outline the correct explanation of the initials.

tək-type

If we first focus on the small and relatively coherent *tək*-type, we see that all its member have – or must have had – palatalised initials: **śewk*^ʼ/_e- ‘call’, **kl̥enk*^ʼ/_e-

‘doubt’, **cekʰ*/*e*- ‘touch’, **cenkʰ*/*e*- ‘stop’, **pletkʰ*/*e*- ‘be much’, and probably **wesʰ*/*e*- ‘dress’. Whereas reliable etymologies are lacking for ‘doubt’ and ‘stop’, reasonable connections are available for the others: ‘call’ is probably related to Lith. *šaukiù* ‘shout’, in spite of the alarming isolation of the etymon (LIV2: 331); ‘touch’ is obviously related to Lat. *tangō* ‘touch’ etc (LIV2: 617); ‘be much’ must be an *sk*/*o*-derivative of the root **pleth*₂- attested in e.g. Lith. *plečiù* ‘spread’ (LIV2: 486); ‘dress’ has long been identified with well-known PIE **ues*-, a.o. E. *wear* (LIV2: 693).

At this point, ‘be much’ must be put aside because it has an extended stem (see also below under “*sk*-presents”, p 468),⁸²¹ and the long **ē* of ‘call’ cannot be explained with the help of the etymology above. For ‘dress’, I see two possible solutions: 1) the root was upgraded when the stative **ues-to* (Ved. *vaste* ‘wears’) was reinterpreted as the weak grade, so that the full grade had to become **uēs*-, or 2) because of its root-final -s-, the verb came to be reinterpreted as an *s*-aorist with the concomitant lengthened grade **ē* (after all, it is an *s*-preterite in Tocharian B; see further under “*s*-presents” below, p 467). Whereas ‘stop’ may be completely analogical after ‘touch’, to which it is close both in form and meaning, the verb ‘touch’ itself deserves a more detailed comment.

After Kortlandt (2000a), Tocharian B *ceśa/ke*- is probably to be derived from a reduplicated perfect, with a certain parallel in Germanic, e.g. Goth. *tekan* < **tēk*- < **dēg*- < **dedg*- < **tedg*- < **tetg*-, and another possible match in the Lat. pf. *tetigi* ‘I touched’. Although Gk. τεταγών is an aorist participle, one wonders if it could go back to a perfect formation as well (see Adams 1999: 289–290).⁸²² Whether or not the Proto-Indo-European root originally contained a laryngeal, i.e. **teh*₂g- (so LIV2: 616–617), a preform *with* laryngeal can explain none of the Tocharian stems actually attested: we would then expect ***tak*- < **th*₂g- and ***tok*- < **teh*₂g-. Thus, the Tocharian forms point to a root without internal **h*₂, which might have arisen through occasional loss in the cluster **-th*₂g-, similar to the development in Germanic. Proceeding from a reduplicated formation **tetg*- without laryngeal, we would have to push the parallel with Germanic one step further and assume that the *t* was lost with compensatory lengthening. Within the Leiden framework (cf e.g. Kortlandt 1983b), such a development may be understood as assimilation of **tg* to **dg*, with subsequent loss of the buccal component of **d*, which resulted in **h*₁g or **ʔ*g.

Evidently, this series of assumptions is not yet enough to explain the whole verb *tāk*-, but at least it yields the stem form **cek*- < **tēk*-. In my view, this is clearly to be preferred over alternative solutions that deny a genetic link with the Greek and Latin words or have recourse to the utterly implausible scenario that the Tocharian verb was borrowed from Germanic or vice versa (Ringe 1991: 105–115).

⁸²¹ The long **ē* reflected in the Lith. inf. *plēsti*, pret. *plēstē* might contain the key to the explanation of *pletk*-, but it belongs to a regular category (Senn 1966: 276–277), which seems to have replaced the *s*-aorist (Stang 1966: 384), so that it is questionable whether it can be used to explain the exceptional, irregular shape of the Tocharian verb.

⁸²² Alternatively, the Tocharian verb might derive from a reduplicated aorist as well.

For the make-up of the Tocharian verb itself, I tentatively suggest the following. Like **ayśa/ke-* ‘know’ (see 4.4.1, p 379), the perfect **tēg-* may have ended up as a thematic present through the key 3sg. form **tēg-e* > **ceśa* >> TB *ceśām*. For this assumption, it is necessary that any alternation between the singular and the plural of the perfect was eliminated, but if the explanation of **tēg-* is correct, this already requires spread from the plural allomorph **tetg-* to the singular (obviously, this happened *because* that form resulted in **tēg-*). The subjunctive may have been formed from the stem *cek-* because it had a palatalised initial itself (as argued in 4.5.3, p 408): on the basis of the prs. *cek’ə/e-*, a sbj. sg. *cek-* ~ pl. *tək-* was created. The other stems, i.e. the preterite *tek-sa-* etc are concomitant with the grading subjunctive and need not be explained separately. According to the regular developments, the unpalatalised initial was levelled throughout the paradigm to yield the attested subjunctive singular allomorph *tek-*.

An alternative derivation of the subjunctive *tek-* ~ *tək-* from the singular allomorph of the perfect is difficult if the root originally contained an internal **h₂*. If that **h₂* was never there, or the perfect was still functional after it was lost, it is difficult to exclude that **te-tog-* > **cə-tek-* >> **tə-tek-* > **tek-* served as the basis of the subjunctive. In that case, we have to assume that the *s*-preterite was formed when this *tek-* was lined up with the regular subjunctive pattern, so that e.g. a preterite with initial palatalisation and an *ə*-grade subjunctive allomorph could be formed.

w-presents

In view of the heterogeneous character of the *klep*-type verbs, it is best to turn first to a relatively clear subgroup: *w*-presents. Strictly speaking, the root grade of the most prominent *w*-presents is unknown: Proto-Tocharian **penw’ə/e-* ‘stretch’ and **melw’ə/e-* ‘crush’ could also be set up as **ṣenw’ə/e-* and **ṣmelw’ə/e-* because **ṣ* and **ṣm* would lose their palatalisation without a trace in this context. Further, PT **spertw’ə/e-* ‘turn’ can hardly be considered definite proof since it is so thoroughly rebuilt. Nevertheless, there is no positive evidence for old **ē*, and especially the Indo-European verb for ‘grind’ (Tocharian ‘crush’) is famous for its **o*-grade formations, e.g. Lit. *malù*, Goth. *malan* (LIV2: 432-433). For the *w*-present of ‘crush’, a parallel formation is found in e.g. Goth. *gamalwjan* ‘oppress’ (LIV2: 433), likewise with **o*-grade. Thus, I assume that the *e*-grade in Tocharian *w*-presents reflects old **o*-grade.

For ‘stretch’, too, parallels can be adduced, albeit rather with **e*-grade: Arm. *henowm* ‘weave’ (*hanowm* is analogical after the aorist, according to Klingenschmitt 1982: 235) and a.o. Goth. *spinnan* ‘spin’ (Klingenschmitt l.c.).

For **spertw’ə/e-*, I would suggest that it is to be derived from **sperdh-* ‘run away’, with a.o. Hitt. *išpar-zi* ‘escape’, Ved. *spárdhate* ‘contends’, Arm. *sprdem* ‘escape’ (LIV2: 580; Kloekhorst 2008b: 410). Unfortunately, there is no parallel for the Tocharian *w*-present, nor for its **o*-grade. The only tentative solution that I can offer is that both were taken over from e.g. ‘stretch’ and ‘crush’ because of the iterative, non-terminative meaning of Tocharian ‘turn; move’ compared to the terminative ‘run away’ that seems to be needed as a proto-meaning.

Evidently, *ləw-* and *nəw-* do not fit the other *w*-presents: the most important difference is that they have initial palatalisation. Since the long grade present **lēuH-* posited especially for Tocharian (LIV2: 417 under **leuH-*, a.o. Gk. λύω ‘let go’) calls for an inner-Tocharian solution, I would nevertheless suggest that the initial palatalisation is due to influence from the other verbs in *-w*. Of course, such influence was only possible after **p* and **m* had merged with **ǰ* and **ṃ*: at that stage, it had become possible to reanalyse **penw^ǰ/e-* and **melw^ǰ/e-* as parallel to e.g. **klēp^ǰ/e-*. In principle, such a late shift of *nəw-* and *ləw-* to the *w*-presents is possible because they are not attested in Tocharian A (we have even evidence of a different present formation {lawnā-} there). However, if the sound changes **ǰ* > **p* and **w* > **y* occurred around the same time, this would mean that the verbs took over a rather “difficult” paradigm with **-yǰ-* ~ **-we-* alternations.

s-presents

Apart from the *w*-formations discussed above, it is striking that four verbs end in *-s*: *klēws-* ‘listen’, *nes-* ‘be’, *mens-* ‘be sad’, and *wəs-* ‘wear’. With Hackstein (1995: 322, 324), the *-s* of *klēws-* must originally have been a suffix in view of forms like TB *ñem-kälywe*, TA *ñom-klyu* ‘fame’, PT **kəln-* ‘resound’ (see 4.4.2, p 389) and TA *klāwā-*, TB *klawa-* ‘call’. As he argues, **klēws-* must go back to **klēus-* (i.e. **klēu-s-*), a form that is strongly reminiscent of an *s*-aorist. The problem is just *how* we can explain **klēws-* with the help of the *s*-aorist, since Hackstein’s scenario (p 324) that a regular preterite **klēwsa* was adapted to **klēwsa*, which in turn was the basis for the prs.-sbj. **klēws^ǰ/se-*, simply cannot be correct.

Unfortunately, I do not have a definite solution either. Perhaps the correct explanation can be brought a bit closer with the assumption that the “*s*-subjunctive” played its part, that is to say, the grading *ǰ|Ø*-root subjunctive of the type *tek-* ~ *tək-* ‘touch’. For instance, it is possible that a **klēws-* ~ **klāws-* was no longer recognisable as an *s*-subjunctive when the *-s-* was lost in the regular grading subjunctive pattern, which might have favoured the abolishment of the root gradation. For some reason then – perhaps *because* of its strange ‘e-grade’ – it would have adopted *ǰ/e*-inflexion. Otherwise, one could argue that the whole paradigm was formed to the strong singular form **klēws*, which must initially have been the phonologically regular result of the 2sg. and 3sg. *s*-aorist injunctive forms **klēuss* and **klēust*. Perhaps the ambiguity of this **klēws* was resolved by adding the **e/o-*-suffix; otherwise, the suffix may have been added at a later stage, when the *-s* of **klēws* had to be restored when word-final *-s* was lost.

For **mens-*, a similar development may have taken place, if a derivation from **men-* ‘think’ (LIV2: 435, a.o. Gk. μαίνομαι ‘be angry’) is considered possible. While **wəs-* is not exactly parallel because the *-s-* belongs to the root, it may have become so similar to the other *s*-presents that was lined up with them; at least it forms an *s*-preterite in Tocharian B.

I do not mean to say that this is exactly what happened, nor that it happened independently in **klēws-*, **mens-* and **wəs-*. However, it is likely that the lengthened

grade $\bar{e}$ is connected to the suffixal $-s-$, which leaves little room for a completely different origin of the type.

Conversely, *nes-* is not likely to be of the same type because it has no initial palatalisation. With Jasanoff (1978: 14; see also Adams 1999: 345; LIV2: 454), *nes-* may be derived from a perfect $\ast ne-nos-$, related to $\ast nes-$ ‘be saved’, attested in a.o. Goth. *ganisan* ‘be cured, saved’ (LIV2: l.c.).

sk-presents

There are three probable *sk*-presents: *tresk-* ‘chew’, *platk-* ‘be much’, and *resk-* ‘flow’. As I indicated above (under “*tək*-type”, p 464), no ready explanation is available for *platk-* (however, see footnote 821), and since the etymology of *resk-* is unknown, it cannot be of any use, unfortunately. Conversely, *tresk-* has a good etymology in Gk. τρώω ‘gnaw’ from $\ast treh_3\bar{g}-$ (LIV2: 647; Arm. *t’urc* ‘cheek’ might be related too). However, as far as the root vocalism is concerned, I can only quote Hackstein, who claims that it is “neologisch” (1995: 180); I would expect a regular *sk*-present $\ast trh_3\bar{g}-sk^e/o-$ to have become $\ast trask^2/e-$. Perhaps the *a* was the original, regular root vocalism and the present was formed analogically after the *klep*-type?

preterite-subjunctive

The *e*-grade presents were at first, for the purpose of a shallow reconstruction, classified according to their preterite-subjunctive stem, namely $\ast kl\acute{e}p^2/e-$ ‘touch’ with $\ast klapa-$, $\ast kl\acute{e}ws^2/e-$ with a present-subjunctive and a secondary preterite $\ast kl\acute{e}ws^2-a-$, and TB $ce^s\bar{a}/ke-$ ‘touch’ with an *s*-preterite stem pattern sbj. $t^e/k-$: prt. *tek*-(*sa*-). Then, in this section, I rather classified them according to their suffix or root-finals, which yielded a slightly more complicated picture.

As remarked at the beginning of this section (under “*tək*-type”), the relatively small *tək*-class shows a constant match between initial palatalisation in the present and an *s*-preterite stem pattern. As I argued, the preterite-subjunctive may have been formed after the present in those cases, but in any case, there is a clear correlation between old $\bar{e}$ -grade and the *s*-preterite and root subjunctive. This correlation matches well with Kortlandt’s explanation of the root subjunctive as an original $\bar{e}$ -grade *s*-aorist (see 4.5.3-4.5.4, p 408). In any case, it is highly unlikely that the present should have been formed to the preterite-subjunctive because of the frequent and regular match of that preterite-subjunctive type with *s*-presents.

The verb for ‘hear’ is the only verb to form a (synchronically) secondary preterite, which suggests that the verb had no preterite at an earlier stage, or all other stems were lost.

As to the *klep*-type, its preterite-subjunctive is clearly formed to the present, even though that is impossible synchronically because of the $\bar{e}/e$ -suffix in the present. At an earlier stage, it was apparently possible to “undo” that present suffix in derived stems. Because most members of the *klep*-type do not show initial palatalisation in the present, such a derivation does not yield problems with the initial in most cases;

however, at least for the verb **klep-* itself, we have to assume that either the palatalisation was also undone in this derivation process, or that the palatalisation in the present is itself secondary. In view of the grading pattern of the preterite-subjunctive of **pənw-* ‘stretch’, we even have to assume that the present *e*-grade itself could be undone. Alternatively, the *ə*-grades needed for this subtype could have to be explained with older *e* : *ə* gradation in the root. Such a gradation would not be unexpected historically, since *w*-presents sometimes have cognates with **e*-grade *u*-presents elsewhere in Indo-European (see above under “*w*-presents”).

4.8 MINOR TYPES

In this section, I discuss four minor subjunctive types that have not been treated so far. In 4.8.1 (p 469), I discuss the specifically Tocharian B *’əy^ə/e*-subjunctive (see also 4.1.2, p 332), in 4.8.2 (p 472) the specifically Tocharian A *ñä/a*-subjunctive, in 4.8.3 (p 476) the TA *a*- and TB *e*-subjunctives, while I return to the classical *’ə/e*-subjunctive in 4.8.4 (p 478).

4.8.1 *’əy^ə/e*-SUBJUNCTIVE

The *’əy^ə/e*-subjunctive (class 4) is only found in Tocharian B and it is not very well attested. Nevertheless, its pattern seems to be relatively clear: the suffix is found in the subjunctive, e.g. {*laſäy^ə/e*} ‘exert’, and in the derived preterite, e.g. {*laſäy-a-*}, whereas it is mostly lacking in the preterite participle, e.g. *lalälu*, *-oſ*, and the derived *ssə/ske*-present. Synchronically, difficulties in the description are 1) the demarcation with the optative, 2) the absence or presence of root-final palatalisation in the preterite participle, and 3) the apparent spread of the derived “*iya*-preterite” beyond this class.

sub 1) Although some forms of the *’əy^ə/e*-subjunctive are indeed identical to optative forms, the two must have been distinct originally. Whereas the *’əy^ə/e*-subjunctive was clearly thematic, cf especially 1sg. *wšiyau* THT1681b5 and 1sg. *lalyyau* AS6Ab1, the *’əy*-optative was athematic, cf especially the 1sg., e.g. 1sg.opt. *klyaušim*, *ākšim*, and the short 3pl., e.g. *tākōm*, probably from **tākoyən* (Peyrot 2008a: 144) and further the 3pl. in Tocharian A, act. *-iñc*, mid. *-inträ*.

sub 2) Root-final palatalisation is found in *aukšu* ‘grown’ (matched by TA *okšu*, Winter 1977: 138), *aušu* ‘dwelled’, *kekaršu* ‘cut’, and *kekalypoſ* ‘stolen’, whereas *āklu* ‘learned’ and *lalälu* ‘exerted’ have unpalatalised root-finals (see 2.9.2, p 148). Apart from the basic observation that the two preterite participles without palatalisation have root-final *-l*, the small number of verbs attested does not allow for useful generalisations.

sub 3) Although the *iya*-preterite is certainly the regular preterite to the *’əy^ə/e*-subjunctive (no competing forms are attested), it is also found with three verbs for which no such subjunctive is attested: 3sg.mid. *krašiyate* IT248b4 (= IT137b3) ‘was upset’, 3sg. *prušiya* B42a5, *prušya* B53a1 ‘skipped’, 3sg. *šawiya* B576a4 ‘?’. It is possible

that the relevant subjunctive forms are not attested by chance; otherwise one would have to assume the *iya*-preterite was an “extra” preterite next to more regular patterns. Since no special grammatical function of the *iya*-preterite can be established (Winter 1961), whereas the *i*-stems (subjunctive and preterite) are sometimes found next to other, obviously related verbs with similar meanings (see especially the root *kālp*-, 4.7.1, p 454), it is probably best to set up separate verbs for *kraṣiyate* and *pruṣiya*. Problematic *śawiya*, which is found in a fragmentary context that does not allow to establish its meaning, might belong to *śay*- ‘live’ (i.e. its old stem *śaw*- that is also found in the causative, see 4.4.1, p 388) or to *śaw*- ‘eat’ (i.e. its preterite stem variant *śaw*-, see 4.4.5, p 395). Since for both verbs a preterite is already attested, *śawiya* would have to be from a related, possibly split-off verb.

Since the suffix of the *ʔay³/e*-subjunctive is distinct from the optative suffix (see above under 1), and “optatif et subjonctif restent en tokharien des catégories distinctes” (Pinault 2008: 588), a derivation from the Proto-Indo-European optative is implausible (pace Lane 1959: 166; van Windekens 1982: 224). Alternatively, the *ʔay³/e*-subjunctive and the corresponding preterite have been derived from a denominative **ie/o*-suffix and original **ie/o*-presents (see especially Hackstein 1995: 219–220).

As pointed out by Winter (1961: 95), a denominal origin seems to be suggested by the existence of a number of related nouns with an *ʔy*-suffix: *lal*- ‘exert’ vs *lalyiye* ‘effort’, *akl*- ‘learn’ vs *akalye* ‘teaching’ and *wəs*- ‘dwell’ vs *yṣiye* ‘night’ (< **wāṣaye*, cf TA *wṣe* ‘id’). However, a reverse relation is more likely: the verbs display shorter stems without *-ʔy*- so that they cannot be derived from e.g. *laḷay*-, whereas the nouns have an additional component nom.sg. *-e* (e.g. *lalyiye*), nom.pl. *-ñ* (e.g. *lalyiñ**) etc, which makes it possible to take them as derivations from the verbs.

More fruitful are comparisons of verbs with nouns without *ʔy*-element, e.g. *śerwe* ‘hunter’ vs *śer*- ‘hunt’ (sbj. {*śeray³/e*}-, see Adams 1988: 74; Hackstein 1995: 220; Pinault 2008: 588–589); the *-w*- must have been lost before the *ʔay³/e*-suffix, i.e. **śerw-ay³/e*- > **śerwāy³/e*- > *śeray³/e*-. Further, Winter convincingly adduced *akl*- ‘learn’ and *lal*- ‘exert’ as denominal formations from nouns containing a suffix *-l* as in *camel* ‘birth’ to *təm*- ‘be born’ (1990a: 376–377; see also Hackstein l.c.).⁸²³

However, next to the denominal *ʔay³/e*-subjunctives discussed above, there are others that are very likely to be primary, in particular *wəs*- ‘dwell’ and *awks*- ‘grow’, which obviously reflect PIE **h₂ues*- ‘stay, dwell’ and **h₂uegs*- ‘grow’ without any intermediate noun. Hackstein convincingly argues that Tocharian B *awkṣay*- was shifted from original present into secondary subjunctive function (1995: 343), but he does not make clear how and why an “Ersatz von **-e/o-* durch **-ie/o-*” (l.c.) should have come about. We might rather consider the possibility that the **ie/o*-suffix is old, as it is also found in OAv. *uxšiiēiti* ‘grows’, whereas Ved. *úḡsant*- ‘growing’ is likely

⁸²³ Winter derives the intermediate nouns from **h₂eǵ*- ‘say’ (Lat. *aiō*, see Hackstein 1995: 332–334 and footnote 834; LIV2: 256; Pinault 2008: 589) and **leh₁-d*- ‘let’ (Goth. *letan*, cf LIV2: 400; van Windekens 1976: 256–257; see in particular Hackstein 1995: 221–222).

to go back to an earlier **úksyant-* because of its initial accent (LIV2: 288–289). If Gk. *ἰαύω* ‘rest’ really contains a **i^e/o-*suffix, as argued by e.g. Hackstein (1995: 220; see also LIV2: 293), this could be a parallel for *wəšəy-* ‘dwell’ as well, but the case is certainly not as strong as for ‘grow’.

Less clear is the situation of *kəlp-* ‘steal’, which has been argued to be a derivation from *klepe* ‘theft’, but could alternatively be a direct reflex of PIE **klep-* ‘steal’ (LIV2: 363). Although LIV2 argues that Gk. *κλέπτω* ‘steal’, which reflects an older **klep-i^e/o-*, replaces the original **e/o-*-present attested in Lat. *clepō* ‘id’ and Goth. *hlifan* ‘id’, it could in fact be parallel to the Tocharian subjunctive (Adams 1989: 243; wrong Hilmarsson 1996: 71; on this verb, see also 4.7.1, p 454).

The evaluation of *kərsəy-* ‘cut’ is uncertain because it could also be an optative to a sbj. *kərk-* or *kərst-* (Winter 1977: 140; Hilmarsson 1996: 94). For *al-* ‘keep away’, the evidence for an *’əy^a/e-*subjunctive is extremely weak. Schmidt (1975: 291–292) argued that the relevant form, *ālyinträ* B255b7, is a subjunctive because the regular optative would have been ***alyiyenträ*, parallel to a form like 3pl.opt. *aklyiyenträ* B605b4 ‘may they learn’. The problem with Schmidt’s analysis is that the subjunctive stem is certainly {al-} on the basis of the inf. *āltsi* (well attested), whereas we would rather expect a contrast between *-i-* and *-iye-* in the 3pl. to be exactly the reverse: the optative suffix was originally just *-’əy-* whereas the subjunctive suffix was *-’əy^a/e-* (see above). Thus, I would take *ālyinträ*, which is from an archaic text, as the older variant of the classical optative ***alyiyenträ*. Consequently, Hackstein’s derivation of *āləy-* (1995: 215) can no longer be upheld.

Uncertain is the evaluation of a number of preterites with *y* or unexpected root-final palatalisation: {cəmpya-} ‘can’, {trəncə-} ‘say’, {lənca-} ‘hang’. Because these verbs have no other morphological parallels to the *’əy^a/e-*subjunctives, while even their preterite formation is not identical (forms like *aklyyamai* ‘I learned’ and *wəšiya* ‘he stayed’ really show an extra syllable or at least a consonant *-y-*, not just palatalisation), I think this preterite pattern is not related to the *’əy^a/e-*subjunctive.

In sum, I agree with Hackstein (1995: 219–220) and Pinault (2008: 588) that the *’əy^a/e-*subjunctive finds its origin in **i^e/o-*presents, in part denominal derivations and in part older verbal formations; there is no connection with the optative. Although the present must have become the most prominent, “basic” stem, which is shown already by the mere fact that it became a subjunctive, the present stem is derived from a shorter form of the root, without *-’əy-*. Perhaps this shorter form was originally preserved in the preterite, since we do not find the *’əy-*element in the preterite participle. Although *akl-* ‘learn’ and *lal-* ‘exert’ are most probably secondary *’əy^a/e-*formations compared to e.g. *awks-* ‘grow’, their preterite participles *āklu* and *lalālu* may have preserved the original pattern. In any case, the type *auksu* cannot be explained from the subjunctive because it has no *-y-*; with Winter (1961: 35), it is better to explain “die Palatalisierung durch Analogie zu den finiten Präterialformen”, possibly through “[e]ine zusätzliche Einwirkung von anderen Partizipialformen mit Palatalisation (*kakāccu*, *lalāmšū*, usw.)”. This development must go back

to Proto-Tocharian because the isolated Tocharian A *okṣu* has a palatalised *ṣ* as well (Winter 1977: 138).

4.8.2 $\tilde{n}^{\tilde{a}}/_{a}$ -SUBJUNCTIVE

The $\tilde{n}^{\tilde{a}}/_{a}$ -subjunctive (class 7) is discussed in great detail by Hilmarsson (1991b: 61-75, 106-117; see also Hilmarsson 1991c), whose synchronic treatment I warmly recommend even though I disagree with his historical explanation. Whereas this class is well attested in Tocharian A (Sieg, Siegling and Schulze 1931: 343), it was thought to be represented in Tocharian B by two members only: *lät-* ‘go out’ and *weñ-* ‘say’ (Krause 1952: 140-141). As Hilmarsson has shown, Tocharian B *lät-* ‘go out’ rather forms a root subjunctive {*län-*} (1991b: 62-63), so that Tocharian B class 7 was reduced to only one member, which he deemed “somewhat suspicious” (o.c.: 106). Although I agree with Hilmarsson that *weñ-* ‘say’ must contain the same denominative suffix as e.g. *tänk^wəññ-* ‘love’ (cf *tänk^w* ‘love’; see in detail 4.4.4, p 394), I see no difficulty at all in analysing it as an $\tilde{n}^{\tilde{a}}/_{e}$ -subjunctive, parallel to *yask-*: sbj. *weñ^a/_{e}* : *yaṣṣ^a/_{ske}*-; prs. *yask^a/_{ske}*- : *weṣṣ^a/_{ske}*- (with loss of *ñ*); prt. *yaṣṣ-á-* : *weñ-a-*. Thus, a Tocharian B $\tilde{n}^{\tilde{a}}/_{e}$ -subjunctive does not exist.

It has long been noted that Tocharian A $\tilde{n}^{\tilde{a}}/_{a}$ -subjunctives often correspond to root subjunctives in Tocharian B, which leads to the logical conclusion that Tocharian A represents a later stage where the subjunctive was recharacterised. Telling examples are the Tocharian A subjunctives {*tänk-*}, {*tänkñ^a/_{a}*-} of ‘check’ and {*tränk-*}, {*tränkñ^a/_{a}*-} of ‘hang’, which correspond to Tocharian B {*t^é/_{3}nk-*} of ‘check’ and {*trenk-*} of ‘cling’. In these two cases, it is clear that the Tocharian A root subjunctives are older: for both verbs, they are attested in the “more nominal” verbal nouns *tänklune* and *tränklune*, which are more likely to have preserved something old than the “more verbal” forms, where indeed the $\tilde{n}^{\tilde{a}}/_{a}$ -stems are found.⁸²⁴ Thus, the question is where the $\tilde{n}^{\tilde{a}}/_{a}$ -suffix may have arisen before it spread to the root subjunctives where it is clearly secondary.

Once Tocharian A $\tilde{n}^{\tilde{a}}/_{a}$ -subjunctives that correspond to Tocharian B root subjunctives are discarded, there are not many verbs left, which is direct proof of the high productivity of the suffix. In all instances where other analyses are also possible, the verb contains a nasal, which sometimes seems to belong to the root, and sometimes to a suffix.

⁸²⁴ The evaluation of 3sg.mid. *tränktär* A115b1 is uncertain: it could be a relic root subjunctive of ‘hang’, or else it could belong to *tränk-* ‘say’.

	TA present	TA subjunctive	TB present	TB subjunctive
‘hit’	{āwnä ^{sä} /sa-}	{āwnä ^ä /a-}	{awnä ^{ssə} /ske-}	{awn-}
‘be necessary’	{kläynä ^{sä} /sa-}	{kläynä ^ä /a-} ⁸²⁵	{kläynä ^{ssə} /ske-}	{kläyn-}
‘give up’	{räynä ^{sä} /sa-}	{räynä ^ä /a-}	{räynä ^{ssə} /ske-}	{räyn-}
‘be satiated’	{säynä ^{sä} /sa-}	{säynä ^ä /a-}	{säynä ^{ssə} /ske-}	{säyn-}
‘rest on’	{se ^{sä} /sa-}	{señä ^ä /a-}	{saynä ^{ssə} /ske-}	{sayn-}

In Tocharian B, the synchronic analysis of these verbs is straightforward: the nasal is found in all stems and clearly belongs to the root. Consequently, the subjunctives are root subjunctives and the presents are ^{ssə}/ske^ə-presents, not *nä*^{ssə}/ske^ə-presents. Conversely, the analysis of the Tocharian A forms is troublesome, as pointed out in 2.6.9 (p 114): sometimes the *n* belongs to the root, sometimes it does not, and sometimes the data is contradictory. Of the verbs above, *räy-* ‘give up’ shows no *n* in the preterite and the preterite participle, so that the present is {räy-nä^{sä}/sa-} and the subjunctive {räy-nä^ä/a-}; *āw-n-* ‘hit’ shows an *n* in the preterite participle but not in the preterite, and *säy-n-* has an *n* in the preterite but not in the preterite participle, so that the shape of the root of both verbs, as well as the analysis of their present and subjunctive stems is uncertain; *se-* ‘rest on’ shows an *n* only in the subjunctive, so that the present is {se-^{sä}/sa-} and the subjunctive {se-ñä^ä/a-}. Since the status of the nasal was apparently so instable, it is very likely that the *ñä*^ä/a⁻ suffix started out in this category, probably through metanalysis.

As shown by Hackstein (1995: 299-300), the nasal of TA *säy-n-* and TB *säyn-* ‘be satiated’ must originate in a suffix, probably the zero grade variant of a *neu*-present suffix, i.e. **säynä-* < **s(h₂)i-nu*. The problematic reflex of the root as **säy-* is probably to be explained with influence from the present stem **soy^ə/e-*, synchronically a split-off verb in Tocharian B (see 4.4.1, p 388): both the absence of palatalisation of **si-* to **š-* and the preservation of **i* as against the expected development to **ə* may be due to restoration on the basis of **soy-*.⁸²⁶

Likewise, TA *kläyn-* and TB *kläyn-* ‘be necessary’ have a good etymology in PIE **klei-* ‘lean’, so that the *-n-* must go back to a suffix. Such a nasal suffix is indeed well attested, found in a.o. Gk. κλίνω (Lesb. κλίννω) ‘lean’, YAv. *-sirinaoiti* ‘leans’, Lat. *dē-clinō*, *-āre* ‘deviate’, OHG *hlinēn* ‘lean’ (LIV2: 332, where Lith. *šlinù* ‘lean’ is taken as a secondary formation). Although the expected shape of a nasal present is **klnei-* ~ **klni-* (so also LIV2: l.c.), such a preform cannot account for the Tocharian forms, since we would then expect *ñ* in all stem forms, whereas we find some with *n*, some with *ñ*. Again, the most likely preform from the Tocharian point of view is **klneu-*,

⁸²⁵ The subjunctive stem is partly deduced: 3sg.mid. *klintar* A343a4 (for *klintär*), and *klyinträ* A400b3 could theoretically also be from a sbj. stem {kläyn-} (the initial palatalisation of *klyinträ* is secondary on any account).

⁸²⁶ It is less likely that the intervening laryngeal of **sh₂i-* should have blocked the palatalisation. In any case, this would not yet account for the *i*-reflex. For the etymology of the root, see 4.4.1 (p 388).

which has a parallel in the Avestan nasal present (on the vocalism, see de Vaan 2003: 515; Lesb. -vv- proves *-vj- instead of *-vʃ-).

While the origin of TA *āw-n-* and TB *awn-* ‘hit, start’ is uncertain, a reasonable etymology can be offered for TA *räy-* and TB *rəyn-* ‘give up’: PIE **h₃rei-* as attested in a.o. OCS *rějo* ‘flow’, and, with a nasal suffix, Ved. *riṇāti* ‘makes flow, run’, or rather ‘whirl’ (Praust 1998: 90), Gk. ῥίπνω, Lesb. ῥίπνω ‘excite, stir’, Goth. *rinnan* ‘run’, and Russ. *rínut* ‘flow’ (Adams 1999: 536; LIV2: 305). The only problem with this connection is presented by the meanings, which are a bit far apart; however, ‘give up’ can easily be derived from ‘let go, let flow, make run’. Again, it is unlikely that Tocharian continues a regular nasal present **h₃rnei-* ~ **h₃rni-*; it rather needs a preform **h₃rneu-*, a formation supported by Germanic, where -nn- reflects **-nw-* (on Lesb. -vv-, see above).

Now that the source of the *ñä/a-*subjunctive has been established, two important questions need to be answered. First, it needs to be clarified how the suffix could spread beyond its original domain; second, the difference in inflexion between Tocharian A and B must be accounted for.

The main reason why the *ñä/a-*suffix could spread has already been given above: it was unclear whether it was part of the root or an independent suffix. Evidently, it could spread *because* it was analysed as a suffix. I can see two ways in which that suffix analysis can have come about: either the nasal element was analysed as a subjunctive suffix because the preterite stem simply had no nasal in origin (after all, it seems to go back to a nasal suffix eventually), or the nasal was lost before the *s* of the preterite (according to the sound law shown by e.g. TA *es* ‘shoulder’ ~ TB *āntse* ‘id’ < PT **anse*).

If we assume that the nasal was lost before the *s* of the preterite, this has the advantage that the Proto-Tocharian stem system was rather simple, similar to Tocharian B. The basic stem was the *n*-subjunctive, from which an *ss^a/ske-*present was derived, as well as an *s*-preterite. The disadvantage is that we have to assume analogical removal of the nasal in a number of forms, e.g. *s*-less preterite forms such as *āwu* ‘I hit’ (of which there cannot have been very many because apart from ‘hit’ only middle preterite forms are attested) and the preterite participles *raryu* ‘give up’, *sasyu* ‘satiated’ (as opposed to *onu* ‘hit’). In view of the close connection between the preterite and the preterite participle, adaptation of the participle to the preterite is certainly conceivable. It may be no coincidence that the only verb for which active preterite forms are attested, *āw-n-*, shows the -*n-* in its participle *onu*: apparently, the preterite participle is a relic of an earlier stage where the *s*-less preterite forms still contained an -*n-*.

If, on the other hand, we assume that the occasional absence of a nasal in the preterite and preterite participle forms is a relic of an earlier stage, the explanation of the subjunctive is straightforward, but other problems are encountered. For instance, it becomes difficult to explain the preterite formation as such, if it is not derived from the subjunctive: the Tocharian *s*-preterites have no parallels elsewhere. Further, it is very difficult to explain why the -*n-* spread from the subjunctive (or even the

present) only to the preterite participle *onu* in ‘hit’: if preterite and preterite participle are incompatible, it is more likely that the latter preserves the older state of affairs since it is not part of the finite verb, but a nominal form. Thus, the spread of the *n*-subjunctive was favoured by loss of the *n* in the preterite rather than by old *n*-less forms.

The discrepancy between Tocharian A $-\tilde{n}^{\tilde{a}}/a-$ and Tocharian B $-n-$ has probably come about through levelling of $-\tilde{n}-$ and $-n-$ in either direction. First of all, we expect a suffix $*-neu-$ $\sim$ $*-nu-$ to have yielded both forms with $\tilde{n}$ and with *n*; the phonologically regular $*-\acute{n}\omega-$ and $*-n\acute{\omega}-$ must have been levelled to $*-\acute{n}\acute{\omega}-$ and $*-n\acute{\omega}-$ at first, and then to $*-\acute{n}\acute{\omega}-$ in Pre-Tocharian A and to $*-n\acute{\omega}-$ in Pre-Tocharian B.⁸²⁷ The palatalised variant seems to be needed for Tocharian B *auñento* ‘beginning’ ($\sim$ Tocharian A *oñant*), which must follow a derivation path where a suffix with $-e-$ is added to a palatalised base, like *aiśaumye* ‘wise’ from $ay^{s\tilde{a}}/_{ke}-$ or *weñenta* ‘speaker’ from $weñ^{e}/_{e}-$. The unpalatalised variant is certainly needed for the Tocharian A present, since the present suffix $-(n)\tilde{a}^{s\tilde{a}}/_{sa}-$ shows no trace of $-\tilde{n}-$. The $\tilde{a}/a$ -alternation of the $\tilde{n}$ -suffix must be secondary after e.g. $\tilde{n}\tilde{n}$ -formations; possibly, traces of the earlier type are preserved in forms like *riñmār* ‘I will give up’ for expected $**riñamār$.⁸²⁸

Finally, I would like to put forward the hypothesis that the isolated Tocharian A $iññ^{\tilde{a}}/a$ -subjunctives (that is, as opposed to the frequent $iññ^{\tilde{a}}/a$ -present-subjunctives discussed in 4.4.4, p 394) replace the $\acute{\omega}y$ -subjunctive still found in Tocharian B (see 4.8.1 above, p 469). Only two verbs form an $iññ^{\tilde{a}}/a$ -subjunctive: *āks-* ‘announce’ and *oks-* ‘grow’, prs. $\{\tilde{a}ks\tilde{ä}y^{s\tilde{a}}/_{sa}-\}$, $\{\tilde{a}ks\tilde{ä}y^{s\tilde{a}}/_{sa}-\}$ vs sbj. $\{\tilde{a}ks\tilde{ä}ññ^{\tilde{a}}/_{a}-\}$, $\{\tilde{a}ks\tilde{ä}ññ^{\tilde{a}}/_{a}-\}$ ‘grow’. My argument is based on two observations: 1) $ok\tilde{s}\tilde{ä}ññ^{\tilde{a}}/a-$ corresponds to Tocharian B *awksäy-*, and 2) the present $oks\tilde{ä}y^{s\tilde{a}}/_{sa}-$ contains an element $i/\tilde{ä}y/$ that is otherwise inexplicable. That the pattern of at least Tocharian B *awks-* goes back to Proto-Tocharian is also suggested by the neat correspondence between the TB prt.ptc. *auksu* and isolated TA *oksu*, see Winter (1977: 138). Thus, I assume that the prs. $oks\tilde{ä}y^{s\tilde{a}}/_{sa}-$ is ultimately an extension of the original sbj. *okšäy-*, either with dissimilation $\tilde{s}_{-}\tilde{s}$ to $s_{-}\tilde{s}$ or with reintroduction of the unpalatalised $-s-$ from elsewhere. The subjunctive suffix probably had a single $\tilde{n}$ at first, i.e. $*ok\tilde{s}iñ^{\tilde{a}}/a-$ (cf perhaps

⁸²⁷ This spread of $\tilde{n}$ is recent because it postdates the depalatalisation of $\tilde{n}$ before *t* in view of forms such as 3sg.mid. *oñtar* A231a5 ‘(s)he will start’, 3sg.mid. *kñāñtār* A352a1 ‘(s)he will know’, 3sg.mid. *nākāñtār* MY3.3a8 ‘(s)he will reproach’ as opposed to e.g. 3sg.mid. *šewimtrā* $\{\tilde{s}ew\tilde{ä}yññ^{\tilde{a}}-tr\}$ with the “old” $iññ^{\tilde{a}}/a$ -suffix.

⁸²⁸ If an alternative solution for the palatalisation of Tocharian B *auñento* can be found, another explanation of the $\tilde{n}$ of Tocharian A can perhaps be offered. It is possible that it originates in a $\tilde{a}/a$ -subjunctive to a root in $-n$, after the model of prs. $lāñc\tilde{ä}^{s\tilde{a}}/_{sa}-$: sbj. $lāñc^{\tilde{a}}/a-$ ‘go out’, prs. $kāw^{s\tilde{a}}/_{sa}-$: sbj. $kāw^{\tilde{a}}/a-$ ‘kill’ etc, which must have been much more widespread in Pre-Tocharian A than in the language as it is actually attested. This second option is less likely because it offers no explanation for the type *riñmār* and the spread of the $-\tilde{n}-$ is perhaps less plausible in a paradigm with a regular $\tilde{a}/a$ -alternation.

ākṣṇam next to regular *ākṣiññam* ‘I will announce’), but was then adapted to the *iññā/a*-present-subjunctive. Since Tocharian B *aks-* ‘announce’ forms no *ʔy^a/e*-subjunctive, Tocharian A *āks-* ‘announce’ may have taken over its pattern from *oks-* ‘grow’, to which it was so close in form. Possibly, the unpalatalised *s* of the presents *āksäy^{sä}/sa-* and *oksäy^{sä}/sa-* was taken over from there (if it is not due to dissimilation as suggested above).

4.8.3 E-SUBJUNCTIVE

As commonly acknowledged (and once more set out in 2.5.1, p 47), the *e-* and *o-*presents of Tocharian B are in complementary distribution: the former are found with *ʔ|a*-roots, the latter with *a|a*-roots. Evidently, this distribution can be traced back to Proto-Tocharian, as the Tocharian A *ā|ā*-root presents with *a*-grade (see 2.5.2, p 56 and 2.6.10, p 116) are clearly secondary:⁸²⁹ prs. {*asā-*} /*asa-*/ ‘dry out’, for instance, goes back to older **oso-*, just like Tocharian B {*oso-*} ‘dry out’. Since they are in complementary distribution, they will go back to a common source. The extreme regularity of the *e-* and *o-*present classes, as well as the frequent match with more complex patterns such as the *s*-present, suggest that they are secondarily derived, as noted already by Winter (1961: 92).

Conversely, the *e*-subjunctive does *not* seem to be secondary because it is formed to a much smaller group of verbs with more varied patterns. Since – except for the fact that it is a subjunctive – the *e*-subjunctive is completely identical to the *e*-present, the *e*-subjunctive must be the origin of the *e*-present. The *e*-present in turn must be the source of the *o*-present, on which see further below.

Just like the *e*-present, the *e*-subjunctive is exclusively middle, it has *ʔ*-grade in the root, and all verbs are intransitive (exceptions to the latter pattern are sometimes found with the *e-* and *o*-presents, not with the *e*-subjunctive). In Tocharian A, the *a*-subjunctive (i.e. ~ TB *e*-subjunctive) combines with a rare preterite type that cannot be secondary: a middle-inflected root preterite with *a*-grade in the root, but without initial palatalisation, e.g. 3sg.sbj.mid. *nkatär* ‘(s)he will perish’: 3sg.prt.mid. *nakät* ‘(s)he has perished’. Even if some sort of analogical origin of this type could be found, it must have been of Proto-Tocharian age at least, as shown by the otherwise anomalous *e*-grade in the Tocharian B match 3sg.prt.mid. *neksate* ‘(s)he has perished’. Further, it must have been more widespread, since it is attested in a relic preterite formation of a verb of a different class, TA *yām-* ‘do’: e.g. 2sg.prt.mid. *yānte* ‘you have made’.

There are various theories on the origin of the class marker *-e-* (for references, see e.g. Ringe 1996: 58 and Pinault 2008: 578–579). Since the most widely accepted variant (Ringe 1987a; strongly overvalued in LIV2 because the productivity of the

⁸²⁹ That the formulation above reflects the actual language situation is shown by shifts such as that of *sparcwš* to *sparcwatär* (see 4.7.4, p 462).

suffix is disregarded) proceeds from $\partial|a$ -roots as found with the secondary e -presents instead of $\partial|\emptyset$ -roots as found with the primary e -subjunctives, it can be discarded.⁸³⁰ In my view, the correct solution has been advanced by Jasanoff, who has made these middle classes to a central theme in his understanding of the Tocharian verb. He suggested that the e -classes in essence reflect the 3sg. ending $*-o$ of what he calls the middle root aorist (1978: 42-43 and passim), i.e. the type Ved. *śáye* ‘lies’ < $*\acute{k}ei-o + i$, often called “stative”. Formally, this derivation is impeccable; the main problem is why a complete paradigm should be built on just one form. The reason must be that the relevant verbs predominantly occurred in the 3sg., cf *kən-* ‘come about’, *kəs-* ‘extinguish’, *nək-* ‘perish’, *pək-* ‘boil’, *tək-* ‘burn’; only *təm-* ‘be born’ is not a typical “middle” in the sense of Kemmer (1993). In any case, the fact that the e -suffix is inert – not itself grading, not combining with gradation in the root – proves that the paradigm results from a thorough regularisation; this is neatly accounted for with a derivation from just one 3sg. form.

Whether the e -subjunctive had become a subjunctive *before* it spread to the e -presents I do not know. However, since it was a present in origin, it is easier to assume that the Tocharian B middle s -present and the Tocharian A middle *näsä/sa*-present are relatively recent completions of the e -paradigm, so pushing the e -formation to subjunctive function. In the e -presents, a different strategy was followed to make a fully-fledged verb, apparently because the characteristic root preterite of the e -subjunctive was not taken over: instead, the ubiquitous a -suffix was used to form an a -preterite-subjunctive.

As to the origin of the o -presents I have a tentative solution that is close to Ringe’s explanation (1987a), but not identical with it. As is shown by the deviant initial accent in the subjunctive, o -presents are secondary to e -presents. While this initial accent may in part be due to the markedly higher frequency of medio-actives among o -presents compared to e -presents (see also 4.5.5, p 413), the very fact that they have more medio-actives in itself shows that they are secondary. Thus, I assume that o -presents ultimately result from the addition of the suffix e to an already existing stem in a : the resulting combination $*ae$ was certainly contracted to o .

The explanation offered above takes the complementary distribution between the e - and o -presents to be secondary: whereas in the e -presents the present stem is primary and the preterite-subjunctive is derived with $-a$ (with $-e + a$ yielding $-a$), the preterite-subjunctive of the o -presents is primary and the present is derived with $-e$ (with $-a + e$ becoming $-o$). If this asymmetric derivation pattern is not accepted, I

⁸³⁰ Ringe argues that the zero grade of the stative suffix $*-eh_1-$ followed by a $*i^e/o$ -suffix contracted to $*\acute{o}$, a compromise between e and o that yielded TB e in principle, but affected a preceding a to become o , after which it was affected by that new o to become o itself. Although I agree that $*aye > *ae$, and perhaps also $*ay\acute{o} > *a\acute{o}$, would result in o (see Peyrot forth.a), I do not see how such a sequence could become e . In a later article, Ringe has himself withdrawn his theory: “I am no longer convinced that Ringe 1996:56-9 is even approximately the correct solution to this puzzle” (2000: 137).

can only think of the following. Both present classes were formed to original $x|a$ -roots, and the combination of a and e yielded o in both classes. However, the o caused o -affection only in $a|a$ -roots, while the root vowel of $\partial|a$ -roots remained the same. Then, the e -suffix of the $\partial|a$ -roots was restored after e.g. the e -subjunctives, but *because* of the o -affection, the salient o_o -presents were left intact: the o in the root blocked restoration. A similar principle seems to have been at work in *onolme* ‘being’ < **ana-elme* where the o in the root blocked restoration of the suffix as in *wpelme* ‘spider’ < **wəpa-elme* (Peyrot forth.a).⁸³¹

For the root preterite I have no solution. Jasanoff’s comparison with the Indo-Iranian passive aorist with **o*-grade (e.g. 2003: 155, 213 and passim) is formally and functionally splendid, but it depends on the doubtful age of that formation (cf e.g. Kortlandt 1981: 127⁸³²), unless one is prepared to accept Jasanoff’s explanation with the h_2e -conjugation. An inner-Tocharian “Schwebeablaut” explanation fails on the lack of a sufficient number of verbs with the suitable *ReC*-structure, it seems: only *nakät* < **nekte* itself could theoretically result from the adaptation of an earlier **enkte* from **nĕ-to*. As a last option, one could consider Kortlandt’s suggestion that the e -grade reflects the $\bar{e}$ -grade of the s -aorist (1994: 63); the lack of initial palatalisation would have to be explained as analogical after ∂ -grade middles.

4.8.4 ∂/e -SUBJUNCTIVE

Although the only Proto-Indo-European formation that could qualify as “subjunctive” was formed with the suffix **-e/o-*, subjunctives with an ∂/e -suffix are only a minor category in Tocharian. First of all, the present-subjunctives discussed in 4.4.1 (p 378), 4.4.4 (p 394) and 4.4.6 (p 398) are actually presents (such as TB *pa^{ss}∂/ske-*, TA *pā^{ss}ā/sa-* ‘protect’), or recent derivations from presents (such as TB *weñ[∂]/e-*, TA *weñ^ā/a-* ‘say’). Then there is another category of ∂/e -subjunctives with clearly secondarily derived presents next to them, which must therefore go back to presents as well (discussed directly below). The only “real” ∂/e -subjunctives are found with **kwəm-* ‘come’ (see 4.3.1, p 351) and the “ s -causatives”, which form the main topic of this section.

In Tocharian B, we find {*ak^{ss}/se-*} ‘announce’, {*a^{ss}/se-*}, probably ‘fetch’, and {*ya^{ss}∂/ske-*} ‘beg’. All three verbs form an evidently secondary *ss∂/ske*-present:

⁸³¹ Lubotsky (after Kortlandt) argues that the o -present reflects a *we*-present (with *we* > *o*; see 4.10.3, p 493), which might in origin be a re-inflected perfect participle form (1985: 7). While the assumption of an old nominal formation is semantically fine and neatly compatible with the morphologically inert character of the class, it offers no explanation for the e -subjunctive and the e -present, nor for the stable a -vowel in the root of o -presents. As I argue, his key example TB *sporttotār*, whose TA cognate *sparcwāš* shows in fact a *-w-*, is to be explained otherwise (see 4.7.4, p 462).

⁸³² Kortlandt argues that it is in origin a denominal formation, which is supported by Migron’s observation (1975) that the passive aorist is often impersonal.

{aksə^{ssə}/ske-}, {ásə^{ssə}/ske-},⁸³³ and {yaskə^{ssə}/ske-}. In addition, ‘announce’ and ‘beg’ form the secondary *a*-preterites {akš-á-} and {yašš-á-}. Thus, these ^ə/_e-subjunctives must reflect earlier presents. While ‘fetch’ lacks a reliable etymology, the *sk*-suffix of ‘beg’ is a clear indication of its present origin (see Hackstein 1995: 185-186). However, the *s*-extension of *ak^{ssə}/se-* ‘announce’ is difficult to explain, as it has no parallels in other Indo-European languages, in spite of the relative good attestation, e.g. Gk. ἦ ‘said’, Lat. *aiō* ‘say’ and Arm. *asem* ‘say’ (LIV2: 256; Hackstein 1995: 332-335; Martirosyan 2010: 117-118). Hackstein argues that *ak^{ssə}/se-* reflects a desiderative **h₂eǵ-s^e/o-*,⁸³⁴ which is theoretically possible because it is in fact a subjunctive, but hardly plausible because it would be the only example. I would rather compare *aks-* with *aksa-* ‘wake up’ and *awks-* ‘grow’: it cannot be a coincidence that all these verbs with an “extra” *-s-* go back to roots ending in *-k*. Possibly, at least one (*awks-*), perhaps more, built an old *s*-present (in the sense of Kuiper 1937: 36-40), which was taken over by the other verb(s). In view of the apparent condition that the root ends in *-k*, it could also be argued that the *-s-* reflects an earlier suffix *-sk-* (see 4.5.6, p 419), but the patterns of the above three verbs are different: we would have to assume that the whole stem pattern was based on the (original) present stem, while the *k* must have been reintroduced to yield the secondary cluster *ksk* from a non-present stem that is not preserved.

In Tocharian A, we find {kāwä/a-} ‘kill’, {yāmä/a-} ‘do’, and {lāñcä/a-} ‘go out’. The subjunctive of ‘go out’ is discussed in 4.3.5 (p 368), where it is argued that is analogical after {šāmä/a-} ‘come’ (see 4.3.1, p 351). For the subjunctive of *yām-* ‘do’, I have argued (4.3.7, p 372) that it probably replaces the root subjunctive found in Tocharian B because the *x|Ø*-root subjunctive seems to be systematically removed in Tocharian A; to the subjunctive of ‘kill’ the same explanation could apply.

The “real” ^ə/_e-subjunctives that remain are those formed to the “*s*-causative”. In Tocharian B, it is a regular category with *ə*-grade in the root and initial palatalisation if possible. In Tocharian B, we find {träy^{śä}/ke-} ‘err’, {tsər^{śä}/ke-} ‘torment’, {pāl^{śä}/ke-} ‘burn’, {plən^{cə}/ke-} ‘sell’, {məw^{śə}/se-} ‘make disappear’?, {wəy^{śä}/ke-} ‘avoid’, {šərp^ə/e-} ‘point out’, {špər^{śä}/ke-} ‘disappear’, and {ləw^{śä}/ke-} ‘light up’. In Tocharian A, it is a relic category that was being replaced by the productive *ñä/a*-subjunctive discussed above (4.8.2, p 472). As noted in 2.6.6 (p 99), the earlier existence of the type is nevertheless proved by such forms as the verbal nouns *trišlune*, *pläšlune* and *tsäršlune* from {träy^{śä}/ka-} ‘err’, {pāl^{śä}/ka-} ‘burn’ and {tsär^{śä}/ka-} ‘torment’, respectively. The verbal noun *eñlune* A11a5 ‘instruction’ to the verb *en-* ‘instruct’ is ambiguous as to whether it is a *ä/a*-subjunctive or a *ñä/a*-subjunctive (thus Carling 2009: 73), but in view of its replacement by the productive *enäšlune* it was probably not clear

⁸³³ If 3sg. *āššäm* B591a4 is {ásəššən}.

⁸³⁴ Because of the Tocharian *a-*, Hackstein reconstructs the root with initial **h₂* instead of the traditional **h₁*, based on Greek ἦ (e.g. Rix 1976: 204; Schrijver 1991: 26-28).

enough for the speakers, which makes it unlikely that it was of the productive $\tilde{n}\tilde{a}/a$ -type (see also Sieg, Siegling and Schulze 1931: 378).

The problem with this $\text{'}\partial/e$ -subjunctive type is that its stem pattern is hardly any different from the $x|\emptyset$ -root subjunctive: both form an *s*-preterite and *s*-present. The only difference is that the $\text{'}\partial/e$ -subjunctive does not combine with $ss\partial/ske$ -presents, a subcategory found with $x|\emptyset$ -root subjunctives. However, in the light of Couvreur's theory that the *s*-present arose through dissimilation after stops, at least *-k* (see 4.5.6, p 419), there is no reason whatsoever to expect $ss\partial/ske$ -presents in this $\text{'}\partial/e$ -subjunctive class: 7 out of 9 end in *-k*.

In view of the rigid regularity of this subclass, it is plausible that it goes back to only a small source, which in turn suggests that the $x|\emptyset$ -root subjunctive was the more original, primary type. How and where this secondary $\text{'}\partial/e$ -type arose I do not know. The one certain old $\text{'}\partial/e$ -subjunctive of 'come' may have been the model, but its $*n\partial sk\text{'}\partial/e$ -present is in fact different from the *s*-present found here (Tocharian A *länt*- 'go out' is a different case because it does form a $n\tilde{a}s\tilde{a}/sa$ -present). One could argue that regular ∂ -grade $\text{'}\partial/e$ -presents caused the shift to $\text{'}\partial/e$ -inflection, as they are synchronically indistinguishable from $\text{'}\partial/e$ -subjunctives: both have initial palatalisation (2.5.4, p 68 and p 73). If this vague analogy is not accepted, there seems to be no other option than to derive these subjunctives from old $*e/o$ -subjunctives. After all, they are formally completely compatible with such a derivation, too, and in that case it is even conceivable that some of the original $\text{'}\partial/e$ -subjunctives were ousted by the better represented $x|\emptyset$ -root subjunctive. Such a shift would be especially attractive because it explains why there are no $\text{'}\partial/e$ -subjunctives with other root grades than the regular $\text{'}\partial$ from $*e$.

4.9 MEANING

As argued in chapter 3, the meaning of the Tocharian subjunctives in main clauses is future and that in subclauses is uncertainty. While the uncertainty meaning and the future meaning are evidently linked, they cannot be unified synchronically because the subclause subjunctive is not a future and the main clause subjunctive does not denote uncertainty. It was further suggested that it is probably the future meaning that derives from that of uncertainty, if the two meanings are diachronically to be derived from one proto-meaning.

The simple formulation of the meaning of the Tocharian subjunctive above is not meant to conceal its wide range of uses. Especially in view of the lack of competing categories other than the optative, whose meaning is neatly distinct, it can hardly be overemphasised that the meanings FUTURE and UNCERTAINTY in principle allow for a derivation from various sources. Since the uncertainty meaning is probably older than the future meaning, any grammatical category denoting uncertainty, possibility or probability would qualify. In addition, it is difficult to *exclude* certain paths of development: *will* meanings could perhaps be a source as well, and even future

meanings could eventually stand at the basis. Likewise, I consider it theoretically possible that the subjunctive goes back to an old present.

4.9.1 SUBJUNCTIVE

As already noted in section 1.3 (p 16), the meaning of the Tocharian subjunctive is in principle compatible with that of the Proto-Indo-European subjunctive. However, there are three serious problems: 1) the reconstruction of the Proto-Indo-European subjunctive is full of problems, 2) in as far as it can be reconstructed, its meaning is difficult to establish, and 3) the Tocharian subjunctive cannot formally be derived from it. In this section, the semantic equation is my main concern.

The meaning of the Proto-Indo-European subjunctive has been the subject of a long and ongoing discussion, from early studies such as Delbrück (1871) up to recent ones such as Tichy (2006), who discusses the history of the debate at length (p 1-50). Whereas the languages that have preserved the subjunctive – as an independent category or in traces – agree in great outline in its use in subclauses, the uses in main clauses vary greatly. In subclauses, the subjunctive has often a faint meaning only, to the extent that it does not seem to add any meaning at all, but merely serves to construe a subordinate clause. In main clauses, the meanings encountered range from future and expectancy to will and generic use. As far as I can judge, the weight attached to the different languages has had a great impact on the reconstruction of the proto-meaning, as so often with the reconstruction of the proto-language in general.

Renou has argued that apart from its usual volitional function, in which it expresses the will of the subject, the Vedic subjunctive denotes subordination and dependency:

“À côté du subjonctif modal – final, consécutif, hypothétique, volitif – on est en droit de poser un subjonctif éventuel, dont le seul motif apparent est de présenter l’affirmation comme générale, indéterminée, implicitement subordonnée” (1932: 9).⁸³⁵

In the same article he has shown that the Vedic subjunctive must in origin have been an independent formation, not taking part in the aspect contrast between the imperfective present stem and the perfective aorist stem: “il y a lieu de poser pour le védique des subjonctifs indépendants, sans autre caractéristique que la voyelle *-a-*, étrangers aux systèmes verbaux fixés” (p 28).

⁸³⁵ Admittedly, Renou’s notion of an “éventuel” is a bit vague, but I am convinced that this is not due to Renou, but rather to the subjunctive itself. In my view, it is a fallacy to conclude from any vagueness in his description that it is wrong. Compare in this respect the strange statement of Hahn (1953: 147), who claims “In Vedic the subjunctive and optative seem hopelessly mixed up with each other, as well as with the future indicative and the imperative.”

Whereas the Greek subjunctive shows great similarity to the Vedic modal subjunctive (excluding Renou's "éventuel" for the moment), it can also be used as a future. In addition, there are some irregular futures that are historically subjunctives, the most prominent example being ἔδομαι 'I will eat'. Whereas the meaning of the Latin subjunctive is of little use for our purpose because it largely derives from the Proto-Indo-European optative, the fact that it has some futures of the same sort is often adduced in support of an old future meaning of the Proto-Indo-European subjunctive.

On the basis of the evidence so briefly presented above, I would be inclined to attach most weight to the Vedic subjunctive, and thus to the "éventuel" which seems to be a relic meaning. I have doubts about the value of the Latin evidence as a whole because the Latin future certainly has other sources beside the subjunctive, and those other sources seem to be much more important, so that the only thing needed is a subjunctive with a meaning that allowed it to become part of the future system – obviously, there are many such meanings. Even if the Latin subjunctive-futures originally had future meaning, which is certainly possible as this notion is also found in Greek, it could easily have developed from a volitional. The latter development is amply recorded, in English with its *will*-future as well as in many other languages (cf the statistic approach of Bybee, Perkins and Pagliuca 1994: 254-257).

The problem, then, is whether the volitional (*will*) subjunctive can be derived from the "éventuel" posited by Renou, or whether it should rather be the other way round. As hinted at above, I think that the synchronic analysis of the Vedic usage points to an old "éventuel" meaning or subordinating function: after all, the volitional use is attested in Vedic itself. Thus, if the "éventuel" seems to be a relic use within Vedic, the volitional is likely to derive from it, and so it could in e.g. Greek.

To mitigate the evidence of Vedic, it could be argued that it does not display the original state of affairs because the use of the subjunctive is influenced by neighbouring categories. Indeed, "Le Veda baigne dans le mode *et*, à l'intérieur du mode, dans les échanges modaux" (Renou 1937: 9), and on top of that it has a precative, a *sya*-future, and a desiderative. However, denoting a wish of the speaker, the precativ was competing with the optative rather than with the subjunctive; the *sya*-future was marginal in the earliest period, so that it can hardly have influenced the use of the subjunctive in any important manner; and the desiderative was only competing with the subjunctive in the first person, since it denoted a wish of the subject, unlike the subjunctive, which could denote the will of the speaker, not of the subject.⁸³⁶ Thus, the large number of modal and future-like categories in Vedic is striking and differences are often delicate, but it is not clear how the "éventuel" use should have been caused entirely by shifting through pressure from other categories.

⁸³⁶ In a recent study, Heenen has argued that the desiderative does not merely express the wish of the subject, but depicts an action as about to take place (2006: 49 and *passim*). Naturally, this sets it further apart from the subjunctive.

Nevertheless, I cannot but remain very cautious with conclusions about the original meaning of the Proto-Indo-European subjunctive. The main reason is that on the one hand it is not clear what the exact role of neighbouring categories was, and on the other hand, it is in general hardly possible to make definite statements about what is a possible semantic development and what is not: reasoning is rather in terms of what is more or less likely. In spite of these uncertainties, I will maintain my view that the meaning of the Proto-Indo-European subjunctive allows for a connection with its Tocharian counterpart. If it was a subordinator, it matches the Tocharian subjunctive in subclauses perfectly; if it was a future, it corresponds well to the Tocharian future subjunctive in main clauses; if it was volitional, it may by all means have developed into a future subjunctive.

An important reason to give priority to Renou's "éventuel", a non-modal, non-future function, is the obvious similarity of the subjunctive with the **e/o*-present, which makes a non-modal origin of the subjunctive likely if one does not want to derive that present from the modal form. The probable connection of these two categories is one of the reasons why the reconstruction of the subjunctive is uncertain: if it developed from a present, the logical question is when that happened. This question receives even more weight if the second difficulty of the reconstruction is taken into account: the subjunctive is best preserved in the "central branches" Greek and Indo-Iranian, with traces in Latin, but apparently not elsewhere. Thus, it is conceivable that it is a relatively recent creation in Indo-European, which was not found in Proto-Indo-European proper (understood as the ancestor of all branches).

In this light, it is highly interesting that Tocharian has in fact inherited the subjunctive, at least morphologically. However, it has not inherited the subjunctive as a category, but only in isolated forms that are now found among the Tocharian subjunctive formations. Thus, if the meaning of the Tocharian subjunctive were inherited from Proto-Indo-European, those few morphological subjunctives would need to have kept their original meaning and all other Tocharian subjunctives would have been created secondarily. It is here that great difficulties arise: if the system Tocharian inherited had been so straightforward as in e.g. Greek, it is hardly possible that such a radical restructuring could have taken place. In addition, the verb for 'come', which has without doubt the most prominent old subjunctive, deviates from regular stem patterns in such a profound manner, that we can only understand the survival of its subjunctive as an incidental phenomenon. It is unlikely that this small group stood at the basis of the subjunctive as a whole.

4.9.2 PRESENT

In theory, a possible semantic source of the Tocharian subjunctive is an old present, as argued by Couvreur (1947: 73) and others. The idea is that the current subjunctive goes back to an old present, which adopted subjunctive function because a new present was created next to it: a push chain development. Indeed, not only the

meaning of the Tocharian subjunctive would fit such a development, but we also find at least one of the diagnostic features Haspelmath has convincingly worked out (1998: 30–33, cited extensively below):

- 1) *markedness violations*: the future or subjunctive has an unmarked form whereas the present is marked, e.g. Udmurt *myn-išk-o* ‘I am going’ vs *myn-o* ‘I will go’;
- 2) *irregular verbs*: some synchronic futures or subjunctives seem to be presents morphologically, e.g. Lezgian prs. *ḡaču-zwa* ‘(s)he takes’ and fut. *ḡaču-da* ‘(s)he will take’ vs prs. *kič’e-da* ‘(s)he is afraid’ with the “fut. suffix” *-da*;
- 3) *unexpected polysemy*: the future or subjunctive also expresses some other meaning that does not seem to be directly linked, e.g. the Lezgian future *-da* cited above is also used as an habitual present;
- 4) *unexpected special uses*: the future or subjunctive has occasionally different meanings in older texts, proverbs, or fixed expressions.

The Tocharian subjunctive displays certainly feature 1) and possibly 2).

The markedness violation is obvious and widespread (see also, e.g. 1.2, p 15). Typical examples are TA *tarkaš*, TB *tārkaṃ* ‘(s)he will let go’ with an unmarked form vs TA *tārñāš*, TB *tārkanam* ‘(s)he lets go’ with a marked form, or TA *pärkmār*, TB *preku* ‘I will ask’ vs TA *prakäsmār*, TB *preksau* ‘I ask’.

The second principle is more difficult because the Tocharian subjunctive shows a wide variety of subjunctives that look like presents, but much less presents that look like subjunctives. However, a good example can be found: TB 3sg. *präskam*, 3pl. *parskam* is a present-subjunctive with the root gradation otherwise typical for subjunctives; it is perhaps no coincidence that it means ‘be afraid’, just like the Lezgian example above. Other forms that could qualify are for instance *lyäka*-type present-subjunctives as 3sg.pl.prs.-sbj. *palwam* of ‘complain’. Nonetheless, the essential problem is that there is no unique marker for subjunctives, so that the forms in question could theoretically also be presents – which is, in fact, what they historically are.

The essential question is whether we are allowed to reverse Haspelmath’s principle and adduce subjunctives that look like presents. Evidently, we are not: the principles are meant as diachronic clues and a subjunctive that looks like a present is obviously what it looks like, namely an old present. The mere fact that we find present-like subjunctives with derived presents beside them, like TB *weñau* ‘I will say’ vs *weskau* ‘I say’, shows that old presents could become subjunctives, but it does *not* prove that other subjunctives that do not look like presents are old presents as well. Thus, I conclude that the question whether the second principle applies invites debate, but in the end the evidence is very weak indeed.

The third and the fourth feature are not found in Tocharian: there are no by-meanings or relic meanings of subjunctive forms that would show that they go back to older presents.

Even if the only explicit indication of a present → subjunctive shift is the markedness of the present, the lack of Haspelmath’s other features does not prove that Tocharian is *not* an example of his path of development: any of such irregular-

ities could have disappeared in the course of time. What is more, none of the indications is absolutely necessary. However, positive evidence for the present → subjunctive shift is in fact meagre, certainly if an alternative explanation of the markedness of the present can be found.

The definite argument against Couvreur's theory does not come from semantics, but from comparative morphology: since it can be shown that the Tocharian category present derives from the Proto-Indo-European present, it cannot be a secondary creation that pushed some old present into subjunctive function. In the case of the nasal presents this is the clearest: if Couvreur's theory is thought through, the subjunctive *tārkaṃ* should be an old present and *tārkanam* should be a new present. Evidently, this leads to serious problems because 1) the nasal present is old and ascertained by comparative evidence, 2) there is no source for a present *tārkaṃ*, and 3) the nasal presents are left unexplained if it is assumed that they were secondarily created: on the basis of what?

Thus, the essence of the subjunctive system cannot be a shift from old presents to subjunctives. Nevertheless, a number of subjunctives must be explained by exactly this development:

- subjunctives in *-s-*, at least *ak^{ss}/se-* 'announce', *awk^{ss}/se-* 'grow' (Hackstein 1995: 327-354);
- subjunctives in *-sk-* in as far as they have a longer present next to them (Hackstein 1995: 167-202);
- PT *weñ³/e-* 'speak', clearly an old present as shown by the new presents TA *trānk-* and TB *we^{ss}/ske-* (Winter 1977: 135-136 and passim);
- *na*-subjunctives, see 4.6.9 (p 448);
- *e*-subjunctives, see 4.8.3 (p 476);
- *i*-subjunctives, see 4.8.1 (p 469);
- TB *laka-* 'see', certainly an old present-subjunctive because it is still preserved in the middle, and because it is parallel to *śawa-* 'eat' etc (4.4.5, p 395);
- PT *tatta-* 'put', on the basis of the comparison with Indo-European (4.3.2, p 357).

The varied character of this phenomenon suggests that it is a secondary development that has nothing to do with the rise of the subjunctive as such. In some cases, we dispose even of hard proof because of relic forms or mismatches between the two languages. Thus, those subjunctives from old presents were not pushed to subjunctive function in the "strict sense": the category was already there and their present origin only attests of a drift in Tocharian to fit all verbs in a rigid present : subjunctive pattern. This drift has affected almost the complete verbal lexicon in Tocharian A, while Tocharian B shows the older stage in many instances, but the principle has been at work at the pre-stages of both languages as well as in Proto-Tocharian.

4.9.3 PERFECT

As argued directly above, the Tocharian subjunctive cannot go back to *the* Proto-Indo-European present, that is, the Proto-Indo-European present is in principle continued by the Tocharian present. However, there were perhaps more present-like categories in Proto-Indo-European, the best candidate of which is the perfect. As recounted in 4.1.5 (p 334), the Proto-Indo-European perfect originally was a resultative, denoting a present state as the result of a past event; in many languages, it developed further into a past tense. If Tocharian inherited a perfect which had become a past tense, I see no way to derive the meaning of the Tocharian subjunctive from it. However, if the perfect it inherited was still a present, it is worthwhile exploring whether it could have undergone a shift from present to subjunctive as sketched in the preceding section.

The essential problem with a derivation of the subjunctive from a second present is that it is not clear how a push chain should have functioned. If the two presents existed side by side, they must originally have had a certain relevant difference because otherwise there would be no need of a second present. Then this difference must have disappeared so that the second present had to move away, apparently towards a subjunctive meaning, or it was transformed into the contrast between present and subjunctive as actually attested in Tocharian.

Kim (2007b) has explored exactly this path of reasoning when he wanted to apply Couvreur's idea (in line with a long tradition, he attributes it to Winter instead, e.g. 1994a: 287). In a nutshell, he has argued that the perfect was a second present in Proto-Indo-European, which filled the blank "non-past + perfective" traditionally reconstructed (e.g. Brugmann 1916: 48):

	imperfective	perfective
non-past	<i>present</i>	? = PERFECT
past	<i>imperfect</i>	<i>aorist</i>

Just like Couvreur, Kim draws a parallel with Slavic, where imperfective and perfective aspect determine the character of the whole verbal system. In northern Slavic languages, a morphological present of the perfective stem does not have present, but rather future reference.⁸³⁷ Thus, if the perfect was a second present

⁸³⁷ An older meaning of the perfective present is found in South Slavic languages, e.g. Serbo-Croatian, which has a separate future formed with the auxiliary 'want', 1sg. *ću* etc. The SCr. perfective present does not denote a future, but it is used 1) in general statements, 2) as a historic present in narratives to convey rapid action, or 3) in subclauses, where it often has future reference (Meillet and Vaillant 1952: 283-284). Although the auxiliary construction is certainly secondary, relics of the same meaning are found in other Slavic languages such as Russian (Vaillant 1977: 155-156).

comparable to the perfective present of Slavic, it could offer a possible source for the meaning of the Tocharian subjunctive.

Evidently, others had seen the “non-past + perfective” blank before and there are obvious reasons to reconstruct it: the imperfective is formed from the present stem and the perfective from the aorist stem, and the aorist stem has no regular non-past. Conversely, the perfect has its own stem that has nothing to do with the present-aorist system; even its endings are of a completely different set. Thus, there are no morphological reasons to take the perfect with the present-aorist system at all: the two systems are clearly separate (e.g. Brugmann 1916: 427-428).

Prohibitive of Kim’s theory, however, is the fact that the perfect was just not the perfective counterpart of the present: it denoted a state. Although the perfect was perfective in the sense that it denoted a state that is the result of a recent *change*, as opposed to the stative, where the starting point of the state is irrelevant, it cannot have filled the “perfective present” blank in the present-aorist system because these formations did not denote states. In my view, the fact that the perfect does neither morphologically nor semantically allow for an analysis as the perfective counterpart of the present is too great an obstacle for Kim’s theory.

I see two alternative courses to explain the subjunctive from the perfect: either the subjunctive should go back to the resultative present meaning directly, or the perfect became a perfective present first. Both scenarios are difficult to exclude completely, so that the question is first and foremost how likely they are.

It is not easy to derive the subjunctive from the stative present meaning directly. On the one hand, unlike the Tocharian subjunctive, the perfect certainly had no future reference, and an uncertainty by-meaning can likewise be ruled out. On the other hand, the subjunctive has no present meaning, nor does it refer to states in particular. Thus, “direct derivation” can at most be true in a relative, not in an absolute sense: there are no shared elements of meaning. This again does not lead us much further: the resultative meaning must have been lost anyhow, which leaves us with a present that should have become a subjunctive. As possible ways in which such a shift could have come about, I see only the push chain type of the last paragraph, or the perfective present, for which see directly below. The problem with a push chain development is that it is completely unclear how it should have worked: I would not know how to understand a situation wherein two presents pushed each other so that one became a present without one of them having been different in a certain respect. And here I have to repeat myself: the present turns up as a present, so that it cannot have had another meaning, and the perfect was different in meaning, but not in such a way that it was likely to become a subjunctive.

What seems to be a more attractive path at first sight is to assume that the perfect, which originally was no perfective present, as argued above, became one in the prehistory of Tocharian. The only way such a radical change could have come about, in my view, is a complete merger of the perfect with the perfective stem, the aorist. This has often been proposed before to explain the preterite, which was derived in part from the perfect, in part from the aorist. As the perfect was not

perfective and the aorist not a present, it requires a smooth merger, resulting in a category with the aspect of the latter and the tense of the former.

Although I think that such a scenario would be adequate semantically, I see great morphological difficulties: it presupposes not only that the perfect has been preserved as a present tense, but also that the aorist has been preserved as a past tense. Both are wrong. Admittedly, the perfect must have merged with the aorist in a certain sense, but the result seems to have been exactly the reverse: the perfect origin of the Tocharian preterite endings suggest that the perfect had become a past tense, whereas an explanation of the endings of the present-subjunctive system requires the inclusion of secondary endings as were found in the aorist. Thus, although the preterite and the subjunctive have characteristics of the perfect and the aorist indeed, there are no indications whatsoever that the perfect became a perfective present, and eventually the Tocharian subjunctive.

4.9.4 INJUNCTIVE

The category that in my view is the most likely source of the Tocharian subjunctive is the aorist injunctive. As an independent category, the injunctive is only preserved in Vedic, but the general view is that it is old and has disappeared in the other languages. It is principally defined morphologically: it is a past tense form without the augment, a prefixed past tense marker (Gk. ἐ-). Without the augment, those forms are not automatically presents because the contrast present : past is double-marked: the present has special present-marking primary endings and the past is characterised by non-present secondary endings and the augment. The injunctive is peculiar in that it takes an intermediate position, combining non-present endings with the lack of the augment, which marks it as non-past.

The meaning of the injunctive is even more difficult to describe than that of the subjunctive. Except for its obligatory use in prohibitive clauses, its meaning is strikingly faint. It can be used in different temporal contexts without explicitly referring to a definite point in time, and in different modal contexts without adding an explicit value of its own. Thus, parallel to its negative morphological definition, Hoffmann describes its meaning in negative terms as “zeitstufenlos, nicht-modal, nicht-berichtend” (1967: 278).

Although with such negative characteristics it shows no clear similarity to the Tocharian subjunctive semantically, the meaning of the latter can easily be derived from it. Any of its non-past or modal meanings may have stood at the basis, but since it is unclear whether such meanings belong to the semantic nucleus of the formation, I would rather opt for the “second present” scenario as discussed in detail in 4.9.2 (p 483) above. In short, the aorist injunctive combines the two most important formal characteristics of the Tocharian subjunctive: in Tocharian terms, it is a preterite stem with present endings, i.e. the originally non-present secondary endings that have merged with the other endings of the present-aorist system in Tocharian (see 4.2, p 341).

As argued by Couvreur, the Tocharian present stem is imperfective and the subjunctive stem is perfective. In Proto-Indo-European, the present stem is likewise imperfective, and since it is continued by the Tocharian present, it would be understandable if its perfective aorist stem is reflected in the Tocharian preterite-subjunctive stem. Indeed, the Tocharian preterite-subjunctive stem shows a number of striking similarities with the Proto-Indo-European aorist stem.

As details are treated elsewhere, notably in 4.5.3-4.5.4 (p 408) and 4.6.5 (p 442), I will here only emphasise an important general agreement: just like the Tocharian present stem, the Proto-Indo-European present stem is mostly marked vis-à-vis the aorist. A quick look in e.g. Brugmann (1916) or LIV2 shows a wide variety of patterns that derive presents from aorists, but only very few that derive aorists from presents, notably the *s*-aorist and the reduplicated aorist. The first type is “demarked” by sound law, that is, the *s* is lost in Tocharian, which turns the originally derived stem into what must be synchronically analysed as a root formation (4.5.4, p 411). The second type is probably reflected in the causative preterite, although causative reduplication is transformed into initial accent in Tocharian B (4.4.6, p 398). Thus, in as far as the Proto-Indo-European aorist was not a root formation already, it has become one through the developments leading to historical Tocharian.

Synchronically, the Tocharian subjunctive looks like a present because of its endings, but diachronically those endings reflect a mixture of the Proto-Indo-European primary endings with present reference and the secondary endings with non-present reference (4.2, p 341). In other words, the non-present – or past, if you will – endings turn up as present endings in Tocharian. This development is highly remarkable if we had to assume that the vehicle category for the secondary endings had been the regular aorist or the imperfect: how could such a past tense have furnished non-past endings? On the assumption that it was rather the injunctive that carried the secondary endings up to their merger with the primary endings, this problem is avoided: the injunctive was not a past tense.

The semantic development will then have been one comparable to that sketched – but rejected – for the perfect in 4.9.3 (p 486). The merger of the primary and the secondary endings threw the aspect contrast between the present stem and the aorist stem (which was to become the preterite-subjunctive stem) into relief: the stem difference became the only difference between two categories that were formerly distinguished by their stem *and* their endings. This led to the rise of a second, perfective present that ultimately became the subjunctive.

In sum, the derivation of the Tocharian subjunctive from the Proto-Indo-European aorist injunctive explains that it is formed from the preterite-subjunctive stem, that it has present endings, as well as its non-markedness compared to the marked present. It further explains that there is no ^ʔ/_e-subjunctive analogous to the Proto-Indo-European “**e/o*-subjunctives”, and it accounts for the present-subjunctive, which goes back to presents with no aorist beside them.

4.9.5 SEMANTIC SOURCES OF THE TOCHARIAN SUBJUNCTIVE

In the above, I have discussed four possible Proto-Indo-European source categories of the meaning of the Tocharian subjunctive: subjunctive, present, perfect and aorist injunctive. Although a present could well develop into a category like the Tocharian subjunctive, which denotes future in main clauses and uncertainty in subclauses, it can be excluded as the ultimate source because the Proto-Indo-European present is continued as the Tocharian present (4.9.2, p 483). A number of Tocharian subjunctives must go back to earlier presents, but since the presents that are found beside them are obviously secondary, this was a late development, when the subjunctive category already existed.

A derivation of the subjunctive from an old perfect encounters insurmountable problems both on the semantic and the morphological side (4.9.3, p 486). While the meaning of the perfect seems rather to be continued in the preterite system, that is, both in the finite preterite and in the preterite participle, it has also furnished the endings of the finite preterite and the morphological design of the preterite participle as a whole.

The subjunctive and the injunctive are not so readily dismissed as possible sources: the subjunctive is so close in meaning that it could have developed into the Tocharian subjunctive directly, whereas the injunctive may have developed into a second present, which is certainly a plausible semantic source. For both categories, we have to restrict ourselves to the aorist stem in order to explain the affinity of the subjunctive stem and the preterite stem in Tocharian. Whereas some isolated formations and probably one category continue aorist “**e/o*-subjunctive” patterns, it is questionable whether these allow to explain the ensemble of the subjunctive system: the asymmetric make-up of the verb for ‘come’ compared to regular patterns, for instance, suggests that the survival of the subjunctive in that verb is a relic. In addition, the bulk of the other subjunctives show no traces of a subjunctive suffix and there are no indications for a loss of that suffix.

The injunctive, on the other hand, seems to have all necessary characteristics: it had no suffix of its own and the merger of the primary (present) and secondary (non-present) endings in Tocharian explains that it became a kind of present. Apparently, it merged functionally with the subjunctive in the course of time, whereas in many cases the lack of a contrast between present and preterite-subjunctive stem was compensated through the creation of new presents that allowed the old presents to become subjunctives. Thus, the Tocharian subjunctive is morphologically a mixture of aorist injunctives, aorist “**e/o*-subjunctive” and old presents, but the origin of the category as a whole is probably to be sought in the first. Both morphologically and semantically, the aorist injunctive is the most likely source of the Tocharian subjunctive.

4.10 CONCLUSIONS

In this chapter, the Tocharian subjunctive has generally been traced back to the Proto-Indo-European aorist. Besides, a considerable number of verbs have a present-subjunctive, which must go back to an older present. In addition, a small number of isolated subjunctives and some minor subjunctive classes with evidently secondary present formations must be derived from the present as well.

4.10.1 ORIGIN

The origin of the Tocharian subjunctive is diverse: in broad outline, it reflects both aorist and present formations, the Proto-Indo-European perfective and imperfective stems respectively. I have found only little evidence for old perfects. Whereas the perfect had become a past tense in the prehistory of Tocharian, as shown by the Tocharian preterite endings, which reflect the endings of the Proto-Indo-European perfect, its stem formation was replaced by that of the aorist. This replacement must have taken place because the primary (present tense) endings of the present-aorist system merged with the secondary (non-present, often past tense) endings. When the contrast was between present and past endings was restored with the introduction of the perfect endings in the aorist, the perfect itself was apparently abandoned. The most salient trace of the perfect is found in the preterite participle, which has preserved both the characteristic reduplication and the perfect participle suffix **-uos-*; however, the stem shape of the preterite participle has been adapted to the preterite. Some individual verbs may reflect old perfects: TB *ayśa/ke-* ‘know’, TB *ceśa/ke-* ‘touch’ and PT **yok-* ‘drink’. Possibly, the 3sg.pf. in *-e* was reinterpreted as a 3sg. of the *’/e-* suffix.

The meaning of the subjunctive can be derived from the aorist through a kind of second present development, as suggested by Couvreur (1947: 73) and others, along the lines of the typological study of Haspelmath (1998). While the Tocharian present in principle continues the Proto-Indo-European present, the aorist was apparently reinterpreted as a kind of present when its endings merged with those of the “real” present. Whether the aorist sources of the Tocharian subjunctive are to be looked for among aorist subjunctives or rather aorist injunctives is not completely clear. However, there are only very few subjunctives with an *’/e-* suffix of a reasonable age, so that a derivation from the aorist injunctive seems more plausible in principle. The meaning of the Tocharian subjunctive need not have completely resulted from a reinterpretation of the second “perfective” present: the Proto-Indo-European injunctive may have developed into the Tocharian subjunctive directly. In addition, the scarce remnants of “original subjunctive”, i.e. **e/o-* formations in Tocharian may point to a pre-stage where the aorist subjunctive had a wider usage, so that it contributed its part in the ultimate semantics of the Tocharian subjunctive.

Although at first sight the number of subjunctives from earlier presents is considerable, they are all clearly secondary formations that result from a strong tenden-

cy, a drift, to supply all verbs with a present, a subjunctive and a preterite. At an earlier stage of the language, there must have been many verbs without a distinction between present and subjunctive (for an overview, see 4.9.2, p 483). As shown by a fairly large number of present-subjunctives, this situation is continued in part in Tocharian B, while Tocharian A has preserved enough individual cases and remnants to ascertain that the phenomenon goes back to Proto-Tocharian. While certain present suffixes, notably TB *-sšə/ske-* and TA *-sā/sa-*, have been extremely frequent in the creation and restoration of present : subjunctive contrasts, synchronic peculiarities of Tocharian A are evidence of different strategies as well. For instance, the large number of suppletive verbs shows that the present : subjunctive contrast was often restored at the cost of suppletion (see 4.4, p 377), while the subjunctive suffix *-āsā/sa-* illustrates that the distinction was so important that completely new suffix patterns arose (see 4.4.6, p 398).

4.10.2 FORMATION

While the above considerations have played only a minor role in the discussion about the origin of the Tocharian subjunctive, most of the treatments have taken the gradation pattern of the root subjunctive (TEB classes 1 and 5) as their point of departure. It was argued (by Lane 1959: 160 and many others) that the gradation pattern sg.act. *e* : other forms *ə* without initial palatalisation could only be derived from the Proto-Indo-European perfect, which had **o*-grade in the singular and *Ø*-grade in the plural. A variant of this theory is the derivation from the *h₂e*-conjugation as reconstructed by Jasanoff, where the original **o* : **e* gradation was replaced by **o* : *Ø* gradation at an early stage if the expected initial palatalisation in the plural was not removed analogically on the basis of its absence in the singular in the prehistory of Tocharian.

Although the most important arguments against the perfect theory are its problems with the development of the Tocharian verbal system as a whole and the meaning of the Tocharian subjunctive in particular, another major weakness is that it offers no explanation for the tight connection between the grading subjunctive to the *s*-present and *s*-preterite system on the one hand or the *n*-present and *x|a*-root preterite system on the other. The connection with the *s*-preterite system was neatly accounted for by Kortlandt (1994), who assumed that the grading *x|Ø*-root subjunctive goes back to the *s*-aorist.

Kortlandt's assumption that the *-s-* of the *s*-aorist was lost in several contexts, especially word-finally and between consonants, is largely compatible with Ringe's derivation of the Tocharian *s*-preterite from the *s*-aorist (1990). However, for his explanation of the Tocharian gradation pattern *e* : *ə* from Proto-Indo-European **ē* : **e* he needed to assume that the vocalism was influenced by the perfect. On the basis of especially the root grades prt.act. *ʼe* vs prt.mid. *ə*, strongly reminiscent of sbj.sg. *e* vs sbj.pl. (etc) *ə*, I assumed that the original root grades of the subjunctive were **ʼe* and **ə*. As this gradation pattern cannot be explained from the Proto-Indo-

European *s*-aorist, I had to assume that the subjunctive plural allomorph owes its unpalatalised initial to influence of the *s*-present, where *ə*-grade was regular. Subsequently, the unpalatalised initial of the subjunctive plural was levelled at the expense of the palatalised initial of the subjunctive singular. From the *x|Ø*-root subjunctive, the pattern was taken over analogically by the *x|a*-root subjunctive. While together the two types made up the core of the subjunctive as such, this spread may at an initial stage further have been favoured by the close semantic match between the two classes: both were predominantly transitive.

4.10.3 TOOLS AND METHODS

Throughout this study, I have tried to keep to the principle that regularity is the result of analogy, while irregularities must be due to sound change. The importance of this working principle in linguistic reconstruction in general can hardly be overestimated, and in view of the complicated prehistory of Tocharian, it must constantly be borne in mind when issues of the reconstruction of Tocharian are addressed. The large number of rigid morphological patterns in Tocharian proves that many and drastic analogical processes have taken place. Although the correctness of an assumed analogical development defies a completely objective verification in the end, necessary requirements are always a model and a motivation, which I have been trying to provide at every occasion.

In spite of my primarily morphological approach, I have not been able to avoid the use of certain sound changes, of which I will briefly highlight a selection below.

For the explanation of the *s*-present, I have adopted Couvreur's dissimilation of **ksk* to **ks* (1947: 62; cf also Klingenschmitt 1982: 62). The precise conditions for this dissimilation are difficult to establish because original **ksk* developed into **sk* (see Hackstein 1995: 74-75), so that it affected only secondary **ksk* as could arise in *sk*-presents when the root was restored. Still, from the distribution of *s*-presents and *sk*-presents it appears that apart from simple *ksk*-clusters, a following *k* was lost after *ps* and *nks*, whereas it remained after *ns* and *Tks*, in the latter context without doubt because the cluster had first been subject to *ə*-epenthesis. Couvreur's dissimilation provides a neat explanation for the absence of roots in *-t* among *s*-presents, which must have lost their *s* between *t* and *k* according to the sound law discovered by Melchert (1977).⁸³⁸ A similar cluster simplification may account for PT **preks'ə* 'asks', if it reflects earlier **pærks'ə* where the *k* was lost, and PT **yårs-* 'honour' from **yærks-*.

The explanation of the causative system depends completely on Malzahn's discovery that the medial *a* of *sk*-causatives was not lost in all forms (forth.a). The

⁸³⁸ The discrepancy between the sound laws *ksk* > *sk* and *tsk* > *tk* must be explained by the better preservation of *ts*: perhaps it first merged into *tʰ* before the *s*-element was lost. Conversely, *ks* could not merge into one phoneme, so that the *k* had to be dropped.

preservation of *a* in certain contexts allows us to search for the conditions of this loss of medial *a*. As I argued in 4.4.6 (p 398), the double condition was probably that the *a* had to be preceded by the accent and followed by a syllable with a heavy vowel (in any case *e* and not *ə*).

As an alternative to Winter's implausible deletion of accented shwa before dentals (1993), I have adopted Marggraf's brief historical account of the Tocharian B accent (1970: 21), which entails a forward shift by one syllable in trisyllabic words compared to the automatic initial accent in disyllabic words (see 4.5.5, p 413). This forward shift explains the difference between e.g. the medial accent of subjunctives next to *e*-presents vs the initial accent of subjunctives next to *o*-presents, and between the initial accent of root subjunctives vs the medial accent of the corresponding preterites. In the paradigms with initial accent, the automatic initial accent of the dominant disyllabic forms was generalised, whereas the medial accent was fixed in the paradigms with predominantly trisyllabic forms.

Of various minor sound changes I will here only mention the loss of *k* in Pre-Tocharian A clusters such as *nkt* and *nks* that results in *nt* and *ns*. Again I had to assume a slightly different sound law for secondarily restored *nkt*, which becomes *kt* as in TA *pikträ* 'writes'. Further, the delicate role of *ə*-syncope and *ə*-epenthesis is illustrated by examples such as TA 1sg.prs. *kumsam* 'I am coming' vs the 3sg.mid. *kumnäštär*, where the shorter combination *mns* was simplified in the former, but the longer *mnäšt* survived because *št* blocked *ä*-syncope. Likewise, **nsk* was evidently simplified to **sk*, but the longer cluster **mnsk* received epenthesis in **k^wəmn^əsk* 'come' so that the *n* could remain. While combinatory sound laws such as the development of *we* to *o* (Penney 1978: 79; see also Peyrot forth.a), have had only a minor effect on morphology (see 4.7.4, p 462), the rigorous restructurings called forth by changes in *n*-clusters are overwhelming. Many of them, like *tn* > *nt*, *kn* > *nk*, *ln* > *ll* or *ntn* > *nn*, are well known, and their impact on morphology is enormous, as they stand at the basis of several new categories such as *ñk*-presents (see 4.6.4, p 435), the subjunctive of 'go out' (4.3.5, p 368), several apparent *n*-subjunctives (4.6.9, p 448), and completely new present types in Tocharian A and B (4.6.10, p 450).

5 SUMMARY

In this study, it has been argued that the Tocharian subjunctive can in broad outline be characterised as a second present formed from the preterite stem. In main clauses, it denotes future tense, while in subclauses it has several functions such as conditionality, iterativity, finality, etc. In essence, the subjunctive is a creation of Tocharian, ultimately reflecting the Proto-Indo-European perfective aorist stem.

5.1 MORPHOLOGY

The main question to be answered in chapter 2 was whether the subjunctive is a second present formed from the preterite stem. After an introduction (2.1, p 21) and a short description of the verb in general (2.2, p 26), the concept of a stem pattern was discussed in 2.3 (p 39): a Tocharian verb consists of five basic stems, i.e. present, subjunctive, preterite, preterite participle and imperative. Mostly, the present stem is marked with an additional suffix compared to the non-present stems.

In addition to the important distinction between monosyllabic roots ending in a consonant (“Nicht-A-Wurzeln”, Hackstein 1995: 16-37) and disyllabic roots ending in *-a* (“A-Wurzeln”, Hackstein l.c.), verbal roots must be divided into gradable roots with basic *ə*-vocalism, “*ə|x*-roots”, and non-gradable roots with basic *a*-vocalism, “*a|x*-roots” (2.4, p 44). These two distinctions yield the four root types *ə|Ø* and *a|Ø* (“Nicht-A-Wurzeln”), and *ə|a* and *a|a* (“A-Wurzeln”).

In 2.5 (p 47), the morphological distinctions of the verb were investigated, while 2.6 (Tocharian A, p 94) and 2.7 (Tocharian B, p 117) contain an inventory of verbal stem patterns based on the stem suffixes. With the important distinction of present-subjunctives, i.e. presents that can also be used as subjunctives, it turned out that presents are often distinguished by a separate suffix, whereas subjunctives are formed from the same stem as the preterite. The differences between the subjunctive and the preterite stems are confined to inflexional peculiarities, in particular slightly different gradation and palatalisation patterns, and an accent contrast in Tocharian B. Sections 2.8 and 2.9 were devoted to the derivation of the imperative (2.8, p 137) and the preterite participle (2.9, p 146) from the subjunctive and preterite stems, and the chapter is concluded with a small summary in 2.10 (p 152).

5.2 SYNTAX AND MEANING

The central point of chapter 3 was to establish the meanings of the Tocharian A and B subjunctives on the basis of their use. The two languages were described separately, with main clause uses in 3.2 (p 166) for Tocharian A and in 3.5 (p 231) for Tocharian B, subclause uses in 3.3 (p 191) for Tocharian A and in 3.6 (p 250) for

Tocharian B, and other uses in 3.4 (p 216) for Tocharian A and in 3.7 (p 276) for Tocharian B.

An important guideline in the description has been that the meaning of the subjunctive is to be extracted from its use rather than equated with it. As it turned out, the basic meaning in main clauses of the Tocharian subjunctive – in both languages – is future tense. The subjunctive is not modal, not deontic; it is not used in wishes of the type *God save the queen!*, which would in Tocharian rather be expressed with the optative.

In subclauses, the subjunctive takes on a variety of functions, which may be summarised as “uncertainty”: it is used in the protasis of conditions, where it may be the only explicit marking of the conditional; it is further found in eventual, iterative, indefinite, comparative, concessive, and final clauses. Compared to present subclauses, subjunctive subclauses denote events that are not well known, or do not need to be known precisely, or of which it is uncertain whether they actually take place, or events that are irrelevant for the main clause. Compared to optative subclauses, subjunctive subclauses often have present or future rather than past reference, or their realisation is more probable than that of the optative clause.

Whereas the subjunctive has no modal uses, the optative and the imperative are preeminent modal verb forms, and different types of modality are in addition expressed by large sets of particles (3.4.5, p 222, and 3.7.5, p 287).

5.3 ORIGIN

In the search for the origins of the Tocharian subjunctive in chapter 4, I have been led principally by stem patterns rather than separate inflexion classes. A major role was reserved for present-subjunctives (4.4, p 377), which were analysed as presents without accompanying subjunctive. The high frequency of typical present suffixes in this category, as well as good correspondences with presents elsewhere in Indo-European, suggests that present-subjunctives go back to older presents, often to presents without accompanying aorist stem. This in turn suggests that if there is a distinct subjunctive, it ultimately goes back to the aorist stem. This assumption explains neatly why the subjunctive stem is so similar to the preterite stem: *both* derive from the aorist stem.

The meaning of the subjunctive can be explained as a perfective present from the preterite stem (see 4.9, p 480): a present of the perfective aorist could not remain a regular present, but had to take on a derived notion, in this case uncertainty and futurity. The rationale behind the rise of the second perfective present is probably that at a pre-stage of Tocharian the primary (present tense) endings and secondary (non-present tense) endings of the Indo-European present-aorist system merged. The replacement of the past endings with the perfect endings led to the creation of an aorist stem with perfect endings: the Tocharian preterite. The only trace of the perfect stem is to be found in the preterite participle and in a couple of isolated presents.

The Tocharian subjunctive has often been compared with the Proto-Indo-European perfect, a present tense denoting a state that is the result of a recent change. Although the perfect was no obvious source for the meaning of the Tocharian subjunctive, and of no help for the interpretation of its stem patterns, it seemed to offer an explanation for two formal characteristics of two subjunctive subtypes: *e* : *ə* gradation and initial accent. While the former appeared to reflect the **o* : **Ø* gradation of the perfect, the latter was taken as an indirect reflex of lost perfect reduplication, which would have caused accent placement on the root, the eventual first syllable.

In 4.5 (p 403), it has been argued that the *e* : *ə* gradation can also be derived from the **ē* : **e* gradation of the Proto-Indo-European *s*-aorist. The comparison of the stem allomorphs of the root subjunctive without root-final *-a* with the corresponding preterite suggests an older gradation pattern **'e* : **ə*: in the subjunctive the unpalatalised initial was levelled. The **ə*-grade so reconstructed is not compatible with the **e*-grade of the *s*-aorist, but it may have been introduced from the accompanying *s*-present, where **ə*-grade was regular. The *s*-element of the *s*-aorist was lost in key forms of both the subjunctive and the preterite, so that levelling resulted in *s*-less stems. Nevertheless, the 3sg. preterite in *-sa* is clearly built on an original *s*-aorist form. As argued in 4.6 (p 430), the *e* : *ə* gradation of the *x|Ø*-root subjunctive spread to the *x|a*-root subjunctive, where it was subject to *a*-affection in Tocharian B, which yielded the attested *a* : *ə* gradation.

5.4 OUTLOOK

It will be clear from the lay-out of this study, its approach and the investigations carried out, that Tocharian studies cannot be a purely linguistic exercise. Although the language contains a fascinating wealth of synchronic and diachronic linguistic puzzles, its attestation and description are needy to such an extent that no fruitful study can be undertaken without the philological manual work. The meaning of many words is uncertain and needs to be established or refined and of many more the morphological patterns are unclear. Since there are hardly any parallel texts, interpretations may well come to depend on one manuscript reading only and it is always worthwhile to check whether a form is correctly transliterated; even more often, fragmentary remains allow for more than one restoration, so that the manuscript must always be taken into account.

On the linguistic level, the importance of the synchronic analysis of the language can hardly be overemphasised. Although scholars nowadays may make use of an ever-growing shelf of thorough and reliable publications on the grammar and lexicon of Tocharian, the synchronic analysis is by no means finished. Many grammatical patterns are still to be explored and regularities and irregularities to be discovered, while numerous individual words are still waiting for a correct morphological classification. As noted on several occasions in the present work, any diachronic investigation must build on a solid basis in the linguistic synchrony of the

language, especially because far-reaching changes in phonology have entailed heavy restructurings in morphology. The closed surface of morphological regularities can only be scratched away through recognition of the productive patterns.

Despite the many prerequisites to the study of Tocharian,

“below the rather forbidding surface of our Tocharian data there are some real treasures to be found. One’s first impression of the languages tends to be that they are oddities in the concert of Indo-European idioms; one is tempted, and some of us remain tempted, to ascribe all kinds of features to Non-Indo-European influence and interference. Closer inspection shows in almost all instances that actually the languages are not so very queer from an Indo-European point of view, and this means that their thorough investigation can yield results not only fascinating, but essential for our endeavors to work toward the reconstruction of Proto-Indo-European.” (Winter 1982: 11)

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SAMENVATTING IN HET NEDERLANDS

De Tochaarse subjunctief

De twee Tochaarse talen A en B zijn bekend uit documenten die gevonden zijn in het noordwesten van China, in de huidige autonome Oeigoerse regio Xīnjiāng (Oei. Šinǰar). Die documenten bestaan voornamelijk uit boeddhistische handschriften en dateren ongeveer van het jaar 400 tot het jaar 1000 van onze jaartelling. Het Tochaars stamt af van het Proto-Indo-Europees: het is verwant aan onder meer het Nederlands, het Engels, het Latijn en het Grieks. Anders dan in andere Indo-Europese talen wordt het Tochaarse werkwoord gekenmerkt door een basale onderscheiding tussen een presens en een subjunctief. Het presens kan vergeleken worden met het Nederlandse presens, maar van de subjunctief bestaat geen duidelijke tegenhanger: in hoofdzinnen is de basisbetekenis toekomstende tijd, terwijl hij in bijzinnen verschillende functies heeft, waaronder voorwaarde, doel, herhaling en onbepaaldheid.

Aangezien het presens zeker basaler is dan de subjunctief wat betreft de functie, is het verwonderlijk dat het presens over het algemeen afgeleid lijkt te zijn van de subjunctief met een extra suffix. Anderszins lijkt de subjunctief vaak zozeer op het presens, dat het verschil soms alleen zichtbaar is als van een werkwoord beide formaties bekend zijn: de kortere is dan meestal de subjunctief en de langere het presens, terwijl de uitgangen dezelfde zijn. Afgezien van de uitgangen lijkt de subjunctief juist meer op het preteritum, de verleden tijd. De belangrijkste vormverschillen tussen de subjunctief en het preteritum betreffen de flexie. Zo zijn de palataliserings- en ablautpatronen niet helemaal hetzelfde, en heeft in Tochaars B de subjunctief vaak beginaccent tegenover suffixaccent in het preteritum.

In het debat over de oorsprong van de Tochaarse subjunctief heeft het Proto-Indo-Europese perfectum een grote rol gespeeld. Sommige subjunctiefstammen hebben namelijk een ablaut die kan worden teruggevoerd op $e : a$, wat in eerste instantie uit $*o : *Ø$ lijkt te komen, exact het ablautpatroon van het Proto-Indo-Europese perfectum. Het grootste bezwaar tegen deze theorie is dat ze niet voorspelt in welke subjunctiefstammen dit specifieke ablautpatroon optreedt en dat ze geen soelaas biedt voor de betekenis.

Een betere verklaring biedt de Proto-Indo-Europese s -aorist, waarvan de $*ē : *e$ ablaut ook $e : a$ zou worden in het Tochaars. Een probleem daarbij is dat zowel $*ē$ als $*e$ een voorafgaande consonant zou hebben moeten palataliseren, terwijl dat in de Tochaarse subjunctief juist niet het geval is. Waarschijnlijk werd in eerste instantie de palatalisering van a (uit Proto-Indo-Europees $*e$) weggewerkt naar analogie van het voor het Tochaars zo karakteristieke s -presens, dat vaak gekoppeld is aan de ablautende subjunctief en synchroon a -trap heeft zonder voorafgaande palatalisering.

Vervolgens moet op basis van deze niet-gepalataliseerde *ǵ*-trap de palatalisering van de Tochaarse *e*-trap (uit Proto-Indo-Europees **ē*) zijn weggewerkt. Een ander probleem is dat de subjunctief nooit een *s*-element heeft, maar de *s* van de *s*-aorist zou zeker in een aantal vormen van het paradigma klankwettig zijn weggevallen, waarna de *s* van de overige vormen analoog kan zijn verwijderd. Het voordeel van deze verklaring is dat het de stricte koppeling van een van de twee ablautende subjunctieftypes aan het *s*-preteritum verklaart: zowel dat subjunctieftype als het Tochaarse *s*-preteritum gaan terug op de Proto-Indo-Europese *s*-aorist, maar de *s* is verdwenen uit de subjunctief. Vanuit dit *s*-aoristtype moet de specifieke subjunctief-ablaut zijn uitgebreid naar het andere ablautende subjunctieftype.

De ontwikkeling van de betekenis van de Tochaarse subjunctief is waarschijnlijk te begrijpen als een tweede presens van de perfectieve preteritumstam, dat vanzelf een futurumbetekenis kreeg. De afleiding van de subjunctief uit de aorist verklaart daarnaast een speciale groep van werkwoorden die geen subjunctief hebben, maar waar het presens ook als subjunctief gebruikt wordt. De presens-subjunctief van die werkwoorden gaat terug op een oud presens: óf ze hebben de aorist om uiteenlopende redenen verloren, óf ze hebben nooit een aorist gehad in het Proto-Indo-Europees.

CURRICULUM VITAE

Michaël Peyrot werd op 20 november 1978 geboren in Amsterdam. In 1997 besloot hij zijn opleiding aan de Rudolf Steinerschool in Haarlem en in 1998 behaalde hij het vwo-diploma aan de Geert Grootteschool in Amsterdam.

In 1999 begon hij met de studie Nederlands in Leiden, waarbij hij vanaf het begin vakken volgde bij Indo-Europees. Na het behalen van zijn propaedeuse Nederlands in 2000 studeerde hij zowel Nederlands als Indo-Europees. Van begin 2001 tot eind 2002 was hij als student-assistent onder het hoofdredacteurschap van Prof. Arie Verhagen werkzaam voor het tijdschrift *Cognitive Linguistics*. In 2002 richtte hij met vier medestudenten T.W.I.S.T. op, een studievereniging voor studenten Vergelijkende en Algemene Taalwetenschap, en in dezelfde tijd was hij als student-assistent redacteur van de online-versie van Douglas Q. Adams' *A dictionary of Tocharian B* (1999). Tijdens een verblijf van een half jaar in Parijs leerde hij in 2003 de beginselen van het Tochaars en de Tochaarse taalkunde van Prof. Georges-Jean Pinault, *directeur d'études* aan de École Pratique des Hautes Études. In 2003 werd de studie Nederlands afgesloten met een scriptie over analogieargumentatie. De studie Indo-Europees, waarvoor hij extra cursussen volgde in onder meer Berlijn, Maynooth (Ierland) en München, sloot hij in 2004 *cum laude* af met een scriptie over taalvariatie in Tochaars B.

Aansluitend aan zijn studie Indo-Europees werkte hij enkele maanden voor het TITUS-TOCHARICA-project in Frankfurt, waar hij Tochaars leerde translitereren onder het toezicht van Tatsushi Tamai. Toen zijn AiO-aanvraag *The Tocharian subjunctive* werd gehonoreerd, begon hij in 2004 onder leiding van Prof. Alexander Lubotsky aan zijn promotietraject, aanvankelijk bij het Centrum voor Niet-Westerse Studies in Leiden, maar al snel als lid van het Leiden University Centre for Linguistics. Vanaf begin 2005 heeft hij als redacteur Tochaars voor het Leidse *Indo-European Etymological Dictionary*-project gewerkt, waarvan hij sinds begin 2010 secretaris is. Na nog een verblijf van een maand in Frankfurt publiceerde hij in 2007 zijn transliteratie van een groot gedeelte van de Engelse collectie van Tochaarse handschriften voor het *International Dunhuang Project*. In 2008 volgde de publicatie van zijn afstudeerscriptie Indo-Europees onder de titel *Variation and change in Tocharian B* bij Rodopi, Amsterdam. Naast cursussen Tochaars, Inleiding Algemene Historisch-Vergelijkende Taalwetenschap en Nederlands als Tweede Taal, heeft Michaël Peyrot in de afgelopen jaren lezingen gegeven in onder meer Berlijn, Leiden, Moskou, München, Münster en Salzburg. Daarnaast heeft hij verscheidene artikelen gepubliceerd in internationale wetenschappelijke tijdschriften. Sinds 2009 is hij redacteur van het tijdschrift *Tocharian and Indo-European Studies*.