The Tocharian Gender System: A Diachronic Study

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CHAPTER THREE

GENDER

IN THE NOUN INFLECTION

The present chapter aims at investigating the evolution of the gender system in the Tocharian inflection of the noun. The main focus is the origin and the development of the feminine and the alternating gender as well as their formal and functional differentiation with respect to the masculine. As a consequence, endings and forms of those inflectional types that may have been relevant in their evolution will be considered. The masculine gender will be treated in less detail, since its development is generally well understood. Furthermore, its relevance to the evolution of the gender system mainly concerns the merger with the PIE neuter.

3.1. TOCHARIAN NOMINAL CATEGORIES

The Tocharian noun is differentiated and inflected according to three grammatical categories: case, gender, and number.

As pointed out in the previous chapter (see mainly §2.3.1), Tocharian has three different gender values: the masculine, the feminine, and the alternating gender. The Tocharian masculine mostly continues the PIE masculine gender, the Tocharian feminine mostly continues the PIE feminine gender, and the Tocharian alternating gender mostly continues the PIE neuter gender. But still, the Tocharian *genus alternans* should be considered as a separate category from the PIE neuter.

As compared to the other Indo-European languages, one of the most striking peculiarities of Tocharian is the category of case. In both Tocharian A and B, the case system is structured in two tiers: a first level consists of the so-called "primary cases",

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[47] Krause (1954, 1955: 23-4) claimed that two other values may be added to the number category, i.e. the "paral" (TchB *-ne*, A *-m̥*) and the "plurative" (TchB *-aiwenta*). He suggested that the paral served for natural pairs and the dual for accidental pairs. After the critical treatment of this analysis by Winter (1962), it is now agreed that the paral is nothing but a dual marker, while the plurative, limited to just a few nouns, made countable and distributional plurals and cannot be considered as a "morphologically signalled category of inflection" (p. 117). On the history of the dual endings and forms, see Hilmarsson (1989) and now Kim (2018) with references.

largely inherited from Proto-Indo-European; the second level consists of the "secondary cases", whose origin is still disputed.[48] A scheme of the Tocharian cases is the following:

Table III.1. Case system of Tocharian

CASES	TOCHARIAN A AND B	TOCHARIAN A	TOCHARIAN B
Primary	nominative, oblique, genitive(-dative)	–	[vocative]
Secondary	locative, perlative, allative, comitative, ablative	instrumental	causal

For the most part, morphological factors determine the division into these two tiers: while the primary cases are fusional, the secondary cases are agglutinative. The secondary case suffixes are attached to the oblique case of nouns inflected for singular, plural, or dual, while the suffixes themselves are number-indifferent.

Note that the equivalent of the PIE accusative is usually termed oblique in Tocharian. Syntactically, it functions as the accusative in many other Indo-European languages; morphologically, it is the stem on which the secondary cases are built. Furthermore, Tocharian is renowned for the "Gruppenflexion", a morphosyntactic phenomenon: in noun phrases, secondary case markers are added only to the last member, while all the preceding ones are inflected in the oblique.

The secondary case suffixes are mostly assumed to be of late origin. Some of them can be traced back to Proto-Tocharian (i.e. locative, perlative, and allative), while some others are independent innovations of each Tocharian language. Carling has dealt thoroughly with their morphological structure, functions, and evolution (see Carling 2000, 2008, 2012, 2017: 1354-55). The secondary cases will not be treated in this thesis. Instead, I will focus on those case endings that prove relevant for the diachrony of gender. For this reason, I will only consider cases inherited from Proto-Indo-European, i.e. the nominative, the oblique, and the genitive(-dative).

3.2. TOCHARIAN NOUN CLASSES

As pointed out in the previous chapter, the *Tocharisches Elementarbuch* by Wolfgang Krause & Werner Thomas (1960, TEB) selects the plural morpheme as the criterion to group Tocharian substantives in classes, which leads to the identification of seven classes. Nonetheless, if we regarded both the singular and the plural paradigm and all minor differences in the inflection, the number of inflectional classes would increase

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[48] It is usually claimed that the origin of the secondary cases is to be ascribed to substratum influence of non-Indo-European languages (see mainly Krause 1951a; K.H. Schmidt 1987 and 1990; Thomas 1994; Barbera 2000: 29-31; Peyrot 2019a). For a diametrically opposite proposal see Carling (2012), who has highlighted similarities between the evolution of the case system of Tocharian and Romani. According to her, the almost completely parallel formation of their case systems may serve as an argument in support of an internal development, without invoking any kind of foreign influence.

enormously, since around thirty types can be identified. This fact does not surprise by itself. For instance, if we considered all minor inflectional differences in the three declensions of Ancient Greek (Attic), we would get a number of inflectional types very close to that of Tocharian. Thus, each class identified by Krause & Thomas can be divided into several other subclasses that in turn make up the Tocharian inflectional types.

In the first three classes, we find nouns that mostly build the plural by means of a suffix marker. See the following synchronic scheme:[49]

Table III.2. TEB Classes I, II, III

	TOCHARIAN B		TOCHARIAN A	
	PL. ENDING	EXAMPLE	PL. ENDING	EXAMPLE
CLASS I	-a	cmel : cmela	-ā	lu : lwā
	-sa	luwo : lwāsa	–	–
	-wa	ost : ostwa	-wā, -u	cmol : cmolu
CLASS II	-na	ñem : ñemna	-äṃ	ysār : ysāräṃ
	-nma	teki : tekanma	-mnā-	arkämnā-
CLASS III	-nta	āke : akenta	-nt	yärk : yärkant
	–	–	-ntu	tiri : tirintu

Class I is poorly represented in both Tocharian A and B. It forms a closed category. The plural ending -sa can only be found in three Tocharian B nouns (lwāsa 'animals', piltāsa 'petals, leaves', lyyāsa 'limbs') and it has no formal match in Tocharian A. Note that very often a noun does not belong to the same class in Tocharian A and B.

The ending TchB -wa, A -wā, -u is more productive than TchB -a, A -ā. Indeed, loanwords are occasionally inserted into this class. Examples include: TchB kottär (pl. kottarwa) 'family' from Skt. gotrá- 'family, clan' and TchB tsain (pl. tsainwa) 'arrow' from OIran. *dₓainu- 'weapon' (cf. Av. zaēnuš- 'baldric'). TchB kottär /kóttər/ has been added to this class because of its formal resemblance to other members of the wa-class, like TchB āmpär* 'limb'[50], TchB kwarsär, A kursär 'league', TchB tsaṅkär, A tsäṅkär 'summit, top', etc., all ending in final -är /-ər/ (see §3.6.1.2.).

In Class II, the ending TchB -nma is very productive, but in Tocharian A it is not.[51] It comes from PIE *-mn-h₂ through regular metathesis of *-mn- to -nm- in Tocharian B (Pinault 2008: 449). It is the plural marker of both inherited nouns and loanwords of Indian (cf. kālp 'eon' from Skt. kalpa-), Iranian (cf. sāñ 'plan, skill' from Khot. saña- 'expedient'), and Chinese origin (cf. cāk 'hundred quarts [dry measure]' from MChin.

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[49] A slightly revised version of TEB declensional classes has been proposed by Hartmann (2013: 63-71). For an introductory diachronic account of these classes, see Pinault (2008: 491-7).

[50] The singular of this noun seems not to be attested. The plural amparwa /ampə́rwa/ is attested twice in NS32 b1 and b2 (see Pinault 2012a).

[51] See Hilmarsson (1991a: 152f.) for a subdivision of the Tocharian B class with plural -nma.

*dzyek > shí 石 'stone; dry measure', Lubotsky & Starostin 2003: 264; Blažek & Schwarz 2017: 37). In Tocharian A, the expected ending *-mnā has been preserved in the adjective TchA *arkämnāṣi* 'pertaining to the burial places' from *arkämnā 'burial places, cemeteries' (cf. TchB *erkenma* 'id.'). Indeed, nouns that are expected to show this ending have regularly added the marker TchA -nt(u) (cf. TchB *nakanma*, A *nākmant* 'faults, errors'; TchB *wakanma*, A *wākmant* 'distinctions, superiorities', Pinault 2008: 495). On the other hand, the Tocharian B ending -na is usually considered to be matched in Tocharian A by -äṃ. However, the Tocharian B counterparts of nouns with the plural ending TchA -äṃ belong to different classes. Furthermore, nouns with *na*-plural form two well-differentiated subclasses in Tocharian B: (1) alternating nouns with no differentiation between nom. and obl. in the singular; (2) feminine nouns with differentiated nom. and obl. in the singular. The Tocharian A equivalents of subclass (2) are ranged under other inflectional classes with differentiated nominative and oblique plural. See §3.6 for both a synchronic and a diachronic discussion on this ending.

Class III is by far the most productive in both Tocharian A and B. Krause & Thomas (TEB §167-173) divided it in subgroups on the basis of the vowel preceding the plural ending. Thus, we have: TchB -enta, A -ant; TchB -onta, A -ant; TchB -ānta /-ánta/; TchB -anta /-ónta/, -änta /-ənta/, A -äntu; TchB -inta, A -intu; TchB -unta. In synchronic terms, the difference between these endings is fairly easy to explain: the plural -nta is directly attached to the basic stem of the singular form of a given noun, which can in turn end with all the aforementioned vowels. It follows that the singular has a zero morpheme, and the plural ending is just -nta. In parallel, we find TchA -ntu as an extended variant of -nt, and it has become the most common plural ending for alternating nouns. It has no formal match in Tocharian B. As pointed out by Sieg, Siegling & Schulze (SSS §§134-136; cf. also Pinault 2008: 497), the plurals in TchA -nt have an allomorph -ntw- when constructed with suffixes of the secondary cases (cf. *ṣurmant* 'reasons', perl. *ṣurmäntwā*, but not in the instrumental, where the *nt*-stem is maintained). The origin of the *nt*-plural is debated, but probably Melchert (2000) is correct when he compares it with the "individualising" Anatolian suffix -ant-. In both Tocharian A and B, this class is the most productive, assimilating most loanwords of Indian origin.

Furthermore, in each of the classes outlined so far, we can randomly find nouns inflected only in the plural (pluralia tantum or lexical plurals), e.g. *mīsa* 'flesh', *ersna* 'form'.

The remaining classes differentiate the nominative from the oblique in the plural. Virtually no alternating nouns can be found here. See the following scheme:

Table III.3. TEB Classes IV, V, VI, VII

	TOCHARIAN B		TOCHARIAN A	
	PL. ENDING	EXAMPLE	PL. ENDING	EXAMPLE
CLASS IV	-ñ| -ṃ	pātärñ	-i| -äs	pācri, -äs
(CLASS I)	-a	mācera	–	–
	–	–	-e| -es	pracre, -es
CLASS V	-i| -ṃ	yakwi, -eṃ	-i| -äs	akṣari, -äs
CLASS VI	-ñ| -ṃ	riñ, -iṃ	-ñ| -s	riñ, -is
CLASS VII	-ñc| -ntäṃ	lāñc, -ntäṃ	-ṃś| -ñcäs	lāṃś, -ñcäs

Class IV consists of kinship terms that are regularly derived from PIE *r*-stems. They include: TchB *pācer*, A *pācar* 'father'; TchB *mācer*, A *mācar*; TchB *tkācer*, A *ckācar* 'daughter'; TchB *procer*, A *pracar* 'brother'; TchB *ṣer*, A *ṣar* 'sister'. The expected continuant of the nom.pl. **-es* vanished, and it seems that the Tocharian languages independently marked this case again, with the abolishment of the expected **pacərə* < PIE **ph₂téres,* etc. In Tocharian B, we have variant forms, e.g. nom.pl. *tkātärñ* vs. *tkacera* or *pātärñ* vs. *pacera*. On the basis of the text distribution of the forms and the phonological shape of the stem, Peyrot (2008: 112-4) demonstrated that the *cera*-plurals are the latest, although it is still debated how exactly the ending *-a* was introduced after the plurals of *sₐ̈suwa* 'sons', *klaina* 'women', and other feminine kinship terms. TchA nom.pl. *-e*, obl.pl. *-es* is found only in the word for 'brother', where it has probably been taken over from the adjectival inflection.

Class V can be divided into three major subclasses. The first and most productive one contains Tocharian B *e*-stems (nom.obl.sg. *-e*, the *yakwe*-type). In Tocharian A, the final vowel has been regularly dropped. It is generally agreed that these nouns continue the PIE masculine thematic inflection (i.e. the PIE **o*-stems). The nom.pl. TchB *-i* is indeed the regular outcome of PIE **-oi̯* (see §4.3.4.1). In Tocharian A, the expected continuant of this ending (TchA †-*e*) seems to have been replaced by *-añ* (cf. **h₁éḱu̯oi̯* 'horses' > TchB *yakwi*, but TchA *yuk-añ*). The obl.pl. is *-eṃ* in Tocharian B and *-as* in Tocharian A. Loanwords referring to human (male) beings are usually inserted into this class (e.g. TchB *ar(a)hānte* 'arhat' from Skt. *arhant-* ~ *arahant-*, BHSD: 67; TchB *winasāre* 'expert in monastic discipline' from Skt. *vinayadhara-* through Gāndhārī; Pinault 1987: 143, von Hinüber 2001: 153). Another subclass inflects in a slightly different way, since, in Tocharian B, its members have a zero-marked oblique singular, palatalisation of the stem throughout the inflection, and obl.pl. TchB *-äṃ*, A *-äs* (cf. TchB *meñe*, A *mañ* 'moon, month', obl.sg. TchB *meñ*, A *mañ*, nom.pl. TchB *meñi*, A *mañi*, obl.pl. TchB *meñäṃ*, A *mañäs*). In addition, a group of Tocharian B nouns inflects like the previous one, but the obl.pl. TchB *-äṃ* is not palatalising (cf. TchB *āśce* 'head', nom.pl. *āści*, obl.pl. *āstäṃ*). Finally, a last class also has palatalising nom.pl. *-i* and non-palatalising obl.pl. TchB *-äṃ*, A *-äs*, but their members end with a non-palatalised consonant in the singular (cf. nom.obl.sg. TchB *kauṃ*, A *koṃ* 'sun, day', nom.pl. TchB *kauñi*, A *koñi*, obl.pl. TchB *kaunäṃ*, A *konäs*).

Class VI is very productive and can be subdivided into an impressive number of subclasses. In Tocharian B, we find the following types:

Table III.4. Inflectional types with nom.pl. -*ñ* in Tocharian B

	NOM. SG.	OBL. SG.	NOM. PL.	OBL. PL.
kantwo-type	-*o*	-*a*	-*āñ*	-*aṃ*
okso-type	-*o*	-*ai*	-*aiñ*	-*aiṃ*
arṣāklo-type	-*o*	-*ai*	-*añ*	-*aṃ*
ymiye-type	-*iye*	-*ai*	-*aiñ*	-*aiṃ*
kälymiye-type	-*iye*	-*i*	-*iñ*	-*iṃ*
wertsiya-type	-*ʸa*	-*ʸai*	-*ʸañ*	-*ʸaṃ*
śamaśke-type	-*e*	-*e(ṃ)*	-*añ*	-*aṃ*
saswe-type	-*e*	-*e(ṃ)*	-*eñ*	-*e(nä)ṃ*
prāri-type	-*i*	-*i*	-*oñ*	-*oṃ*

In light of the many similar endings and forms, it is reasonable to assume that some nouns shifted between these subclasses during the development of nominal declensions, both in the prehistory of Tocharian B and in Proto-Tocharian.

In Tocharian A, the identification of the inflectional classes is easier. Basically, we only find the following plural forms: (1) -*añ*| -*as*; (2) -*āñ*| -*ās*; (3) -*iñ*| -*is*; (4) -*eñ*| -*es*. A convenient synchronic mechanism identified by Sieg, Siegling & Schulze (SSS §146) highlights the fact that when a given noun ends with a vowel in the singular, the plural form quite often repeats that final vowel (cf. TchA *ri* 'city', nom.pl. *riñ*; TchA *poke* 'arm', nom.pl. *pokeñ*); on the other hand, when a given noun ends with a consonant in the singular, the vowel in the plural form varies (cf. TchA *olar* 'fellow, companion', nom.pl. *olariñ*), although it usually belongs to those types with plural -*añ* or -*āñ*. From a diachronic perspective, the first type (pl. -*añ*| -*as*) usually matches the Tocharian B *e*-stems (TEB Class V.1); the second type (pl. -*āñ*| -*ās*) matches nouns belonging to Class VI in Tocharian B (cf. TchA *oṅkaläm* 'elephant', nom.pl. *oṅkälmāñ* vs. TchB *oṅkolmo*, nom.pl. *oṅkolmañ*). However, there are significant exceptions. Indeed, it is important to note that feminine nouns referring to female entities always belong to this subtype with pl. -*āñ*| -*ās* (with the exception of TchA *lānts* 'queen', whose plural varies *lāntsañ* ~ *lāntsāñ*). The Tocharian B equivalents of these feminine nouns belong to Class II (pl. -*na*).[52]

Lastly, we have Class VII, which is the least productive. The most prominent member is TchB *walo*, A *wäl* 'king' (pl. TchB *lāñc*| *lāntäṃ*, A *lāṃś*| *lāñcäs*). In Tocharian A, this inflectional class is even limited to this noun.

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[52] For a detailed overview of the plural ending -*ñ* and its various inflectional types in Tocharian A, see SSS §§146-156 and §§226-240.

In this thesis, I will not deal with all of these classes, but only with those relevant to the diachronic analysis of the gender system. They will be outlined in the following paragraphs.

3.3. AIM

The three pivotal questions this chapter addresses are (1) how the PIE feminine gender evolved in the Tocharian noun inflection, (2) how the PIE neuter gender evolved in the Tocharian noun inflection, and (3) whether the PIE neuter gender is continued as the Tocharian *genus alternans*. These three questions lead to other minor issues about the marking of alternating and feminine nouns from both a synchronic and a diachronic perspective, and, in general, about the consequences caused by the morpho-phonological mergers of the three inherited genders in the system of the noun.

In order to understand how the PIE feminine gender evolved in Tocharian, I will investigate the Tocharian inflectional classes that may continue four different PIE types that are important to the historical evolution of the feminine gender: (1) the non-ablauting *eh_2-type (i.e. the *"$\bar{a}$"-inflection); (2) the ablauting *h_2-type (i.e. the *$\bar{a}/\breve{a}$-inflection); (3) the ablauting *ih_2-type (the so-called *devī́*-type, *-ih_2/*-ieh_2); (4) the non-ablauting *ih_2-type (the so-called *vr̥kī́*-type). For each of the identified inflectional classes, I will analyse the paradigm of the singular and the plural in both Tocharian languages, in order to verify where the comparison between Tocharian A and B allows to reconstruct Proto-Tocharian structures straightforwardly, and where they do not match. In this latter case, new problems will of course come to light and for each of them an attempt at an explanation will be made. It will then become clear that some of these inflectional types exhibit similar or equivalent characteristics, since they attest nominative and/or oblique endings that are often the same. As a consequence, it may be assumed that some of these classes influenced each other over the prehistory of the two Tocharian languages, i.e. in a Proto-Tocharian phase and then independently in Tocharian A and B.

In order to understand whether the PIE neuter is continued as the Tocharian alternating gender, I will try to find alleged outcomes of the PIE thematic neuter and clarify how this reconstructed class has developed in Tocharian. Continuants of the athematic type will also constitute the subject of my investigation, although they have usually been well explained. For this reason, I will limit my attention to those types whose origin has in my view been overlooked and to those that have played an important role in the evolution of the gender system.

Among the TEB inflectional types outlined above, there are some that are more relevant than others to carry out an in-depth analysis of the Tocharian gender system. They will be the subject of this chapter. The Tocharian A classes are simpler, because the Proto-Tocharian word-final vowels *-*a*, *-*æ*, and *-*ȧ* have been lost in this language. For this reason, I will mostly refer to Tocharian B when individuating and naming these types. Nonetheless, evidence from Tocharian A will be consistently considered and analysed in tandem with that of Tocharian B.

3.4. STRUCTURE OF THE CHAPTER

Although synchronic analyses are sometimes necessary, the main approach of the investigation is diachronic. In §3.5, the evolution of feminine nouns denoting female referents is investigated (*śana*-type and *aśiya*-type). In §3.7, I discuss the plural endings TchB *-na* and TchA *-āṃ*, which play an important role in the evolution of both the feminine and the neuter. Some of the inflectional types from Class VI are historically analysed in §3.7 (*kantwo*-type, *okso*-type, *arṣāklo*-type, *wertsiya*-type). Each one of these types contributes to a better understanding of the feminine gender. In §3.8, an overview of the development of neuter nouns is offered. A short summary of the main findings concludes the chapter (§3.9).

3.5. FEMININE NOUNS REFERRING TO FEMALE ENTITIES

The *śana*-type and the *aśiya*-type

This section aims to trace the history of two closely related inflectional classes of feminine substantives, whose plural formation ends in TchB *-na*, as well as their Tocharian A matching nouns and forms. I will discuss problems about their inflection and highlight their central role in the evolution of the Tocharian feminine gender.

All these grammatically feminine nouns share a core semantic feature: they denote female referents. From the point of view of their paradigm, they can be grouped into two main classes:

(1) the *śana*-type, with the following inflection (exemplified with TchB *śana* 'wife', TchA *lānts* 'queen'):

Table III.5. Inflection of the *śana*-type

	SINGULAR		PLURAL	
	TchB	TchA	TchB	TchA
NOM.	*-a*	*-Ø*	*-ona*	*-añ ~ -āñ*
	śana	*lānts*	*śnona*	*lāntsañ ~ -āñ**
OBL.	*-o*	*-Ø ~ -āṃ*	*-ona*	*-as ~ -ās*
	śano	*lānts ~ -āṃ*	*śnona**	*lāntsas* ~ -ās*
GEN.	*-oy*	*-e*	–	–
	śnoy	*lāntse*		

(2) the *aśiya*-type, with the following inflection (exemplified with TchB *aśiya* 'nun', A *aśi* 'id.'):[53]

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[53] Note that TchA *-śś-* is an inner-Tocharian A development of *-śy-* between vowels (cf. also the obl.sg.f. variants *-ṣṣāṃ ~ -ṣyāṃ* in the inflection of Tocharian A *ṣi*-adjectives, see §4.3.3.1).

Table III.6. Inflection of the *aśiya*-type

	SINGULAR		PLURAL	
	TchB	TchA	TchB	TchA
NOM.	^{-y}a	-i, -Ø	^{-y}ana	$^{-y}\bar{a}ñ$
	aśiya	aśi	aśiyana	aśśāñ
OBL.	^{-y}ai	$^{-y}\bar{a}ṃ$	^{-y}ana	$^{-y}\bar{a}s$
	aśiyai	aśśāṃ*	aśiyana	aśśās*
GEN.	$^{-y}antse$	^{-y}e	$^{-y}anaṃts$	$^{-y}\bar{a}śśi$
	aśiyantse	aśśe	aśiyanaṃts	aśśāśśi

Another feminine noun with the *na*-plural in Tocharian B is the word for 'woman', TchB *kliye*, A *k_uli*. This noun forms a separate inflectional class by itself. Also, its paradigm is very irregular and has several variant forms in some cases: nom.sg. TchB *kliye ~ klyiye*, A *k_uli*, obl.sg. TchB *klaiṃ ~ klai ~ klaiñ*, A *k_ule*, nom.obl.pl. TchB *klaina*, nom.pl. A *k_ulewāñ*, obl.pl. *k_ulewās*. The etymological and morphological difficulties connected to this word have been the subject of a very long debate, and proposals about its origin have been made by several scholars (Pedersen 1925; Schmidt 1980: 409-410; Kortlandt 1988a; Hilmarsson 1996: 157-159; Blažek 2005; Pinault 2005; Adams DTB: 242-3). However, I think that none of the etymologies proposed is conclusive. I have of course tried to figure out a possible source and derivation, but I cannot so far offer a convincing solution myself. The reader is referred to Peyrot (2008: 106f.) for the explanation of most of the variant forms, and to Pinault (2005) and Kortlandt (1988a) for some etymological proposals, the last one ultimately based on Schmidt (1980).

As can be seen from the tables above, the corresponding Tocharian A nouns do not share the same inflection as that of Tocharian B. This mismatch is peculiar and deserves an explanation. For this reason, in the following paragraphs and in the next section, I will discuss the endings of the primary cases of these classes, in order to outline their historical evolutions from Proto-Indo-European to Tocharian.

3.5.1. THE *śana*-TYPE

Tocharian B nouns with nom.sg. *-a*, obl.sg. *-o* and their Tocharian A correspondents

The analysis of the *śana*-type has proved to be a controversial topic, since it plays a pivotal role in the evolution of the feminine gender. As we will see, the debate has focused on the paradigm of the singular, in general, and on the opposition between nom.sg. *-a* and obl.sg. *-o*, in particular. My final goal is to understand if these nouns inherited their paradigm from Proto-Indo-European or if some analogical developments need to be postulated. Before going into these diachronic matters, however, some preliminary synchronic remarks will be made.

3.5.1.1. Members and synchronic problems

The *śana*-type is not a productive class, since it includes only three nouns: TchB *śana*, A *śäṃ* 'woman, wife', TchB *lāntsa*, A *lānts* 'queen', and TchB *ṣarya* '(beloved) lady'. Inflected forms of the first two substantives can be frequently found; the latter is without equivalent in Tocharian A and it is well attested only in the vocative and in the nominative singular in Tocharian B. However, on the basis of the comitative form TchB *ṣaryompa*, attested once in B496 a3-4, we can infer the obl.sg. *ṣaryo*.

TchB *śana* and TchB *lāntsa* are matched in Tocharian A by *śäṃ* and *lānts* (frequently spelled *lāṃts*, as in e.g. A324 b4, YQ III.7 a8). Both nouns have a peculiar inflection and some interesting endings.

TchA *lānts* has two oblique singular forms: besides the common *lāntsāṃ* (e.g. *lāṃtsāṃ* in YQ III.5 b8, perl.sg. *lāntsānā* in A78 b1), we find isolated forms of an obl.sg. *lānts* (e.g. *lā(ṃ)ts* in A94 a5 and abl.sg. *lāntsac* in A319 b7). Since TchA *-āṃ* represents the ubiquitous feminine oblique in both nouns and adjectives, it is reasonable to assume that TchA *lānts* is the archaic form (cf. obl.sg. TchB *lāntso*). We have variants also in the plural inflection: nom.pl. *lāntsañ*, obl.pl. *lāṃtsas* stand beside nom.pl. *lāntsāñ*, obl.pl. *lāntsās*. It is evident that the former forms are older, since the endings *-āñ| -ās* represent the common plural paradigm of the Tocharian A feminine nouns with female referents (etymologically equivalent to the Tocharian B *aśiya*-type). As a consequence, the oldest inflection of TchA *lānts* is: nom.obl.sg. *lānts*, nom.pl. *lāntsañ*, obl.pl. *lāntsas* (cf. SSS §233).

On the other hand, the plural paradigm of TchA *śäṃ* presents a special problem. Indeed, besides the expected obl.pl. *śnās*, this noun is supposed to have a pl. *śnu*. Since Sieg, Siegling & Schulze (SSS §179.c), this TchA *śnu* is unanimously interpreted as a nominative plural. Winter (1985: 262) argues that TchA *śäṃ* had two parallel plural paradigms: (1) TchA *śnu* (nom. = obl.) < **śənwa-* had a collective meaning, while (2) TchA *śnāñ*| śnās* was the regular "countable" plural. In my opinion, this explanation is ad hoc. One could think that *śnu* has been analogically created after the plurals TchA *sewāñ* 'sons' (cf. TchB *säsuwa* 'id.') and *kulewāñ* 'women', but still I cannot account for the absence (or the loss) of final *-āñ* in the nominative plural.[54]

I have found only two attestations of TchA *śnu*, and both are from passages with considerable problems of interpretation.[55] The first is in A299 b2 /// *pr(ā)mne śnu · brahmavatiṣiṃ śriññāktes kātsaṃ cmolu nutässi cmol eṃtsäṣtär* || "... the *śnu* of the Brahmin [i.e. Brahmāyu]. In order to make the births disappear, he takes birth in the womb of the Śrīdeva of a Brahmāvatī" (cf. Peyrot & Semet 2016: 367). This leaf preserves the end of the 10th act of the Tocharian A *Maitreyasamiti-Nāṭaka*, which has been

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[54] One may think that this *śnu* maintained the original situation prior to the addition of final *-ñ* (cf. TchB *säsuwa* vs. A *sewāñ*). But see the main text below. Not with Čop (1975: 4) can we interpret final *-u* in TchA *śnu* as the regular outcome of PIE **-ās*.

[55] According to SSS §164, there would be a third attestation of this form in a broken document, but I was not able to find this fragment.

translated into Old Uyghur as the *Matrisimit*. However, a Uyghur parallel of the Tocharian A passage is unfortunately missing, and there are therefore no external clues to translate TchA *śnu* properly. If *śnu* is a nominative, its position at the end of the sentence, before the dot, is surprising and urging caution. Furthermore, compositions in other languages dealing with the legend of the Buddha Maitreya do not mention that Brahmāyu (or Subrāhmaṇa), the father of Maitreya, has more than one wife.[56] Reference is made only to his divine mother Brahmāvatī.

A second attestation is in A86 a4, which is very fragmentary: ///*tvāp śnu mā tās(–)āṃ* ///. The restorations of the gen.sg. (*bodhisa*)*tvāp* at the beginning of the line, and TchA *tās(km)āṃ* 'like, as' at the end are quite certain. However, the understanding of the line is still obscure (/// (*bodhisat*)*tvāp śnu mā tās(km)āṃ* /// "… not like the *śnu* of the Bodhisattva …" (?)).

Thus, the contexts do not indicate that *śnu* is a nominative plural. No nominal modifiers or inflected verbs are in agreement with this form. Other hypotheses can be put forward, but they are still not conclusive.[57] I therefore believe there is no secure evidence for considering TchA *śnu* as an inflected form of TchA *śäṃ* 'wife'.

Before proceeding further with the historical analysis of these nouns, let us come back again to Tocharian B, since another very controversial substantive is supposed to be a member of the *śana*-type. It is a famous hapax legomenon attested as an apparent oblique singular in the archaic document B275. The traditional reading of line b4, where the noun is attested, is as follows: *tkātre petso aiṃ-ñ cai śāmnā* (Peyrot 2008: 98; Kim 2009a: 113 fn.6; Hartmann 2013: 161). According to this reading and division, the passage would contain two hapax legomena: the first is our noun TchB *petso* (equated with TchA *pats* 'husband'); the second is *tkātre*, a morphological hapax, usually analysed as an archaic genitive singular of TchB *tkācer* 'daughter', from PIE *dʰugₐtr-ós (Gk. θυγατρός, Skt. *duhitúḥ*, OLith. *dukterès*). The genitive singular of this noun is expected to have been *tkātri** (cf. gen.sg. *pātri* from TchB *pācer* 'father', gen.sg. *mātri* from TchB *mācer* 'mother', *protri* from TchB *procer* 'brother').

A new look to this passage has been offered by Pinault (2010), who divided the sequence *tkātre petso* as *tkātr epetso*, with *tkātr* as a sandhi-variant of the obl.sg. *tkātär*, and *epetso* as the obl.sg. of an unattested noun TchB *epetsa** 'fiancée' (cf. also Pinault 2019: 97). The entire passage would have to be translated as follows: "The people will give their daughter as a fiancée'". This reading has two important advantages: first, the irregular gen.sg. †*tkātre* ceases to exist; second, it makes the translation of the document more coherent with the Khotanese parallel passage in the Book of Zambasta (22, 123c-124a):

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[56] Cf. e.g. the Khotanese version of the *Maitreyasamiti* (Kumamoto forth.).

[57] One could indeed claim that TchA *śnu* is the nom.sg. of a *u*- or *nu*-adjective (e.g. *yäslu* 'enemy', *lukśanu* 'shining'), or an inflected form of the otherwise only dual *śanweṃ* '(two) cheeks', from PIE **ǵenu-* (the *a*-vocalism of *śanweṃ* for expected ***ś(ä)nweṃ* is probably due to analogical development after *kanweṃ* 'knees', as Michaël Peyrot p.c. pointed out to me). However, both solutions are very tentative.

māta päte kṣundai heḍä dätäna käḍe tcarṣuva hvạ'ndä "a mother, a father will give to a husband their five-hundred-year old daughter as yet unmatured" (Emmerick 1968: 307; see Peyrot 2013: 663 fn.45).

Pinault's analysis of TchB *epetso* as the obl.sg. of *epetsa** received broad consensus (cf. Malzahn 2011: 89-90 fn. 14; Fellner 2014: 8; Hackstein 2017: 1320; Weiss 2018: 375). Although I consider the new reading of the passage entirely correct, I think that the hapax legomenon TchB *epetso* should be considered as an adverb with the meaning of 'in marriage' (see Peyrot 2013: 663 fn.45), which has been built on the original oblique singular of the equivalent of TchA *pats* 'husband' (< PTch *pætsə*, cf. Skt. *páti-* 'lord, master', Lat. *potis* 'able, capable', Gk. πόσις 'husband'). According to this analysis, the final *-o* of *epetso* is due to the so-called "bewegliches *o*", which is fairly common in metrical passages (cf. *śauwlo* for TchB *śaul* 'life' at the same line of *epetso*, and nom.pl.m. *poñco* for *poñc* 'all' at line b5). Although deriving adverbs from substantives is not a productive process in the historical phase of the Tocharian languages, there is good evidence that it was in Proto-Tocharian (Adams 2015: 172). Furthermore, very often a new adverb is formed with a prefix *e(n)-*, as in this case, which could have had either an intensive or a locative value. In this case, the adverb would mean 'in husband' → 'in marriage' (cf. TchB *elauke* 'far', from *e(n)-* + *lauke* 'remote, far'; TchB *eweta* 'in conflict (with)', from *e(n)-* + *weta* 'battle'; TchB *eṣe* 'together', from *e(n)-* + *ṣe* 'one'), and the expression TchB *epets ay-* should be translated as 'to give [someone] in marriage'. I have therefore not included it into the *śana*-type.

3.5.1.2. Diachronic analysis

In the following sections, I will deal with the etymologies of each noun of the *śana*-type. Then, I will analyse their problematic endings and forms in order to trace their history and derivation from Tocharian to Proto-Indo-European.

TchB *śana*, A *śäṃ* 'wife'

TchB *śana* and TchA *śäṃ* are the most prominent members of this class. They evidently go back to the PIE word for woman, $*g^w énh_2 / *g^w n-éh_2-$.[58] This noun originally belonged to the proterodynamic inflection:

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[58] The relation of this noun with the PIE root $*g^w ón-/*g^w én-$ is evident, although the exact derivation is still problematic. See mainly Harðarson (1987). For the Anatolian evidence, see Gusmani (1985), Harðarson (1987), Kloekhorst (2008: 501ff.), and Lipp (2009: II, 57).

Table III.7. PIE proterodynamic paradigm of $*g^wénh_2$-

CASE	R	S	E	'WIFE'
nom.sg.	é	-	-	$*g^wénh_2$
gen.sg.	-	é	-	$*g^wn\text{-}éh_2\text{-}s$
acc.sg.	é	-	-	$*g^wénh_2\text{-}m$

Leaving aside for the moment the outcome of this noun in Tocharian and looking at the other Indo-European languages, we can basically recognise three specific trends of development for this noun, as summarised below:

(1) conservation of the PIE paradigm, as in OIr. *bé* 'woman' < $*g^wenh_2$-, gen. sg. *mná* < $*g^wneh_2\text{-}s$ and Arm. *kin*, instr. sg. *knaw*.[59] In Indo-Iranian the two PIE stems split into doublets, cf. the *i*-stem Ved. *jáni*- 'wife, woman', OAv *jə̄ni*- (YAv. *jaini*-) < $*g^wenh_2$-, and the *ā*-stem Ved. *gnā*- 'wife, goddess', OAv. *gənā*-'(heavenly) woman' (YAv. *γənā*-) < $*g^wneh_2$- (Harðarson 1987: 130; EWAIA: I, 503-04 and 569-70; AIGR: III, 113 and 137; Hoffmann & Forssman 2004);

(2) generalisation of one of the two stems, as in Greek, cf. γυνή, Dor. γυνά, Beot. βανά (cf. the derived adjective Myc. *ku-na-ja* /gunaiā/ 'feminine', a Pylos' hapax) < $*g^wneh_2$- (GEW: I, 334-335; Chantraine 1999: 242f.; Beekes 2010: 291-2);[60]

(3) generalisation of the full grade in both the stem and the suffix, as in OCS *žena*, OPr. *genno*. In Germanic, $*k^wenō < *g^wenā$ is the basis of the *n*-stem $*k^wenō(n)$ (cf. Goth. *qino*).

For Tocharian, two elements are relevant: (1) the consonant *ś*- as the outcome of a palatalised (labio)velar; (2) the endings nom.sg. *śan-a*, obl.sg. *śan-o*, and the plural stem *śno-*.

TchB *śan-* and TchA *śäṃ* point evidently to PTch *śən-*, which in turn can be the regular outcome of PIE $*g^wen$- (strong stem). This means that some analogical levelling of the root took place in the prehistory of this word, since we do not have any alternation between palatalised velar ($*śən$- < $*g^wen$-) and non-palatalised labiovelar ($*k^wən$- < $*g^wn$-) in Tocharian. However, it is not entirely clear if this generalisation took place in a Proto-Tocharian phase or if it should be reconstructed at an earlier stage. If we opted for the second hypothesis, then the development of TchB *śana*, A *śäṃ* would have been parallel

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[59] It seems probable that OIr. *bé* is from $*g^wenh_2$, while the feminine OIr. *ben* reflects a new nom.sg. PCelt. $*benā$ > OIr. *ben* (thus Jasanoff 1989; Zair 2012: 223-4).

[60] The inflection of Gk. γυνή shows allomorphy. The stem γυνή(-) is attested only in the nominative and in the vocative, and the stem γυναικ- in all other cases (though a number of variant forms exist, including acc.sg. γυνήν, nom.pl. γυναί, acc.pl. γυνάς). The origin of the κ-stem is debated. The common view involves a comparison between Gk. γυναικ-, Arm. nom.pl. *kanay-kʼ*, abl.-loc.pl. *kanay-s*, and Messapian *gunakhai* (from $*g^wnh_2\text{-}iH$- (?), Olsen 1999: 172). Cf. also Szemerényi (1960), who reconstructs an original adjective *γυναικός.

to the one seen in the Slavic languages, where the full grade was generalised, and the word became a non-ablauting *-*ā*-stem (e.g. OCS *žena* < *$g^w en\bar{a}$). This analysis is supported by some scholars, including Winter (1981: 938), Ringe (1996: 94-7), Adams (DTB: 677), and Kim (2009: 78). Accordingly, the diachronic evolution of the singular paradigm would have been as follows: nom.sg. *$g^w enh_2$ >> *$g^w eneh_2$ > PTch *$śəna$ > TchB *śana*, A *śäṃ*; acc.sg. *$g^w enh_2$-*m* >> *$g^w eneh_2$-*m* > PTch *$śənå$ > TchB *śano*, A *śäṃ*.

The problem with such an analysis is twofold. On the one hand, no other Tocharian continuant of *"*ā*"-stems has a singular inflection with nom.sg. -*a*, obl.sg. -*o*, particularly in adjectival and pronominal inflections.[61] On the other hand, the fact that *-*eh₂* regularly yielded PTch *-*å* even in word-final position is corroborated by other inflectional types (§3.7.1.2, §3.7.2.4, §3.8.2.1, §4.3.4.4).

As a consequence, a better explanation of the nom.sg. TchB -*a* starts from PIE *$g^w enh_2$, which regularly evolved into TchB *śana* (Pinault 1989: 59). A special issue relates to the obl.sg. *śano*, because it cannot go back to the accusative singular PIE *$g^w enh_2$-*m*. After the loss of final *-*m* in Proto-Tocharian, this form should have yielded * *śəna*, and nominative and oblique would have become perfectly homophonous. In order to disambiguate these core cases, Tocharian generalised the stem of the weak cases PTch *-*å*- < PIE *-*eh₂*- in the oblique singular. This analysis is supported by Pinault (2008: 486) and is further corroborated by evidence that will be treated below and in the following sections (cf. §3.7.1.2). In particular, in some other nominal classes, Tocharian seems to have continued the stem of the weak cases (e.g. the PIE dative or the genitive singular) as the oblique, in order to differentiate nominative and oblique in a Proto-Tocharian phase. As for the palatalised consonant of the stem, it can be explained by analogical levelling based on the strong cases. This implies that a stem with palatalised consonant *-*śən*- became the standard stem before the break-up of Proto-Tocharian.

Another ending that needs to be discussed is the genitive singular TchB -*oy*, A -*e*. Following a private suggestion by Cowgill, Ringe (1996: 54-5, 59f.) claims that TchB -*oy* is the regular outcome of the genitive PIE *-*eh₂*-*s*, which yielded PTch *-*åy* and then TchB -*oy*, A -*e* (cf. also Katz 1997: 61f.). This peculiar development of PIE *-*s* > PTch *-*y* would be a specific auslaut sound law that operated in monosyllables. However, the diphthong TchB -*oy*- usually originated from a contraction over two syllables. Examples from verbal morphology include: (1) the optative allomorph -*oy*-, which only occurs in those subjunctive stems ending in PTch *-*a*- (Malzahn 2010: 348f.); (2) the verbal root TchB *soy*- 'to be satiated', which is from PIE *$seh_2ĝ$*- (cf. Hitt. *šāḫ*- 'to stuff up', Gk. ἄεται 'is satied', Lat. *satis* 'enough, sufficient') + a present formant suffix *-*i̯e/o*- (Hackstein 1995: 299-300). Examples from nominal morphology include: (1) TchB *poyśi* 'omniscient', which is from *po* 'all' + *aiśi* 'knowing'; (2) TchB *soy*, A *se* 'son', which is from PIE *$suH-iu$-, cf. Gk. υἱύς 'id.' (Winter 1985; Chantraine 1999: 1154).

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[61] As I will show in other sections (§4.2.4), the nom.sg. -*a* in *alyāk* 'other' (obl. sg. *allok*) and *sana* 'one' (obl. *somo*) is secondary.

Following Winter (1999: 254-7) and Pinault (2008: 441), it is therefore likely to analyse the gen.sg. TchB -*oy* /-oy(ə)/ (?) as PTch *-*ǎ̊*- + *-*əy*, where PTch *-*ǎ̊* was the regular oblique singular and PTch *-*əy* was secondarily taken from the gen.sg. -*i* of the kinship terms and the demonstratives. As a matter of fact, the other examples provided by Ringe in support of a sound law PIE *-*s* > PTch *-*y* in monosyllables can now be reconsidered: (1) the nom.pl.f. TchB *toy* 'those' is not from *téh₂-es > *tās, but it rather acquired final -*y* from the masculine inflection (*pace* Ringe 1996: 59 and 95; cf. nom.pl.m. *cey* and the TchA counterpart nom.pl.f. *to*-, §4.2.3.3, §4.2.3.4); (2) TchB *trey*, A *tre* '3' needs not to go back to PIE **tréi̯es* > *trēs > PTch *tŕǽy directly (*pace* Ringe 1996: 54-5), but PTch *tŕæ (< *trēs) more probably acquired final *-*y* either from the feminine PTch *tərya (as per Pinault 2008: 554), or from the nominative plural ending (as per Michaël Peyrot p.c., cf. also TchB *wi* 'two' that has added the dual ending -*i* to the outcome of PIE **du̯oh₁*).

All things considered, the evolution of the singular paradigm of TchB *śana*, A *śäṃ* can be schematised as follows:

Table III.8. Evolution of the singular paradigm of TchB *śano*, TchA *śäṃ*

	PIE				PTCH			TCHB	TCHA
NOM.	*gʷénh₂	> *kʷenǎ	> *śəna	>	*śəna	>	nom.	*śana*	*śäṃ*
ACC.	*gʷénh₂-m	> **kʷenǎ(m)*	> *śəna	↗	**śənǎ̊*	>	obl.	*śano*	*śäṃ*
GEN.	*gʷnéh₂-s	> **kʷnā(s)*	>> **śənǎ̊*	>>	**śənǎ̊-y*	>	gen.	*śnoy*	*śne**

TchB *lāntsa*, A *lānts* 'queen'

The second noun to be discussed is TchB *lāntsa*, A *lānts* 'queen', which is to be linked to TchB *walo* /wắlo/, A *wäl* 'king' (obl.sg. TchAB *lānt*). The formal match between Tocharian A and Tocharian B and the unproductive inflectional class to which the noun belongs ensure its archaic formation. The morphological and semantic masculine counterpart TchB *walo*, A *wäl* is a substantivised participle from the PIE verbal root **u̯elH*- 'to control' (Lubotsky 1994; LIV²: 676). [62] Although the feminine noun is evidently of Pre-Proto-Tocharian origin, it is at first sight unclear whether it is a derivative of the masculine noun, or the substantivised outcome of the feminine participle. However, if we consider that both Tocharian nouns are members of an unproductive class (cf. also the Tocharian A plural paradigm) and that feminine nouns deriving from masculines almost always belong to the *aśiya*-type, the derivation of PTch *lantsa from an old participle seems more probable (as per Malzahn 2013: 110: "The latter [scil. *lāntsa*] started out as a feminine formation in *-*nt-ih₂* [...], which was based on the masculine form of a *participle* [...] in -*nt*-", emphasis by the author).

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[62] This evolution strikingly resembles **u̯r-ant*- > Khot. *rre, rrund*- 'king', though I do not think that Tocharian has calqued this formation from Khotanese (*contra* Tremblay 2005: 426).

Further evidence for this historical analysis comes from the reconstructed inflection of PTch *lantsa*. Indeed, it is usually assumed that PTch *lantsa* took the inflection after the model of PTch *śǝna* (Pinault 2008: 486; Malzahn 2013: 110). However, if TchB *lāntsa* and TchA *lānts* can be ultimately traced back to a substantivised feminine participle, it can be claimed that they inherited the inflection directly from Proto-Indo-European. Indeed, the feminine participle inflected as a *devī́*-type in the proto-language, with a proterodynamic inflection parallel to PIE *$g^w\acute{e}nh_2$-:[63]

Table III.9. Participle of PIE *$\underline{u}elH$-*

	PROTO-INDO-EUROPEAN			PRE-PROTO-TOCHARIAN	
	MASCULINE	FEMININE		MASCULINE	FEMININE
NOM.	*$\underline{u}l̥H$-ōn(t-s)*	*$\underline{u}lH$-nt-ih₂*	>	*wǝlōn*	*wlǎntyǎ*
ACC.	*$\underline{u}lH$-nt-m̥*	*$\underline{u}lH$-nt-ih₂-m*	>	*wlǎnt*	*wlǎntyǎm*
GEN.	*$\underline{u}lH$-nt-os*	*$\underline{u}lH$-nt-i̯eh₂-s*	>	*wlǎntos*	*wlǎntyās*

In the feminine, a length-differentiated contrast *-ă- vs. *-ā- between the strong and the weak cases can indeed be reconstructed for the antecedent of PTch *lantsa*. This contrast is expected to have yielded *-a- vs *-å- in Proto-Tocharian. As a consequence, there is no need to reconstruct analogical developments in order to explain the singular paradigm nom. -a, obl. -o of TchB *lāntsa*: in a Proto-Tocharian phase, the weak stem *lantså has been reanalysed as the Tocharian oblique. Thus, we can schematise the following development:

Table III.10. Evolution of the singular paradigm of TchB *lāntsa*, TchA *lānts*

	PTCH				TCHB	TCHA
NOM.	*lantsa*	>	*lantsa*	>	NOM.	*lāntsa*	*lānts*
ACC.	*lantsa*	↗	*lantså*	>	OBL.	*lāntso*	*lānts >> lāntsāṃ*
GEN.	*lantså*	>>	*lantså-y*	>	GEN.	*lāntsoy*	*lāntse*

As far as the plural inflection is concerned, Tocharian A has two sets of plural forms that are differentiated by the vowel preceding the ending (nom.pl. *lāntsāñ*, obl.pl. *lāntsās* vs. nom.pl. *lāntsañ*, obl.pl. *lāntsas*). We have already seen that the second plural set is the older one. The sources of the vowel TchA -a- are various, but the match TchA -a- : TchB -o- points to PTch *-å- (if not from Pre-TchA *-ā- through vowel weakening). This vowel should in turn be considered as the regular outcome of PIE *-eh₂- > *-ā-. In other words, both Tocharian languages point to the reconstruction of the full grade of the root *-i̯eh₂- (characteristic of the *devī́*-type) for both the oblique and the plural.

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[63] The table is based on Lubotsky (1994: 70) and Pinault (2008: 511f.). If the acc.sg. PIE *-ih₂-m̥ underwent Stang's Law, yielding *-īm, then the acc.sg. Pre-PTch *-yǎm was reintroduced after other case forms. On Stang's Law, see recently Pronk (2016: 23) and §4.3.4.4.

TchB *ṣarya* '(beloved) lady'

The last noun to be discussed is TchB *ṣarya* (without equivalent in Tocharian A), whose etymology has caused years of debate among scholars. This noun is usually translated as 'beloved, dear (woman)' (e.g. DTB: 713; Broomhead 1962: II, 247), 'Geliebte' (Sieg & Siegling 1949: 180; Otto 2007), 'female lover, concubine' (Winter 1981: 938; 2003a: 205), 'chérie, bien-aimée' (Pinault 2008: 486).[64]

In recent years, a new interpretation has been proposed by Kim (2009a), who claims that TchB *ṣarya* means 'lady, mistress', without any sort of affective value. Kim largely bases his analysis on B33 a4, which is part of the Tocharian Udānālaṅkāra without clear parallels in Sanskrit. The passage in question is as follows:

B33 a4

saswe	*ṣarya*	*sompastär*	*te*	*retke*	*yāmträ*
lord:NOM.SG	NOM.SG	take away:3SG.PRS	DET	army:NOM.SG	do:3SG.SBJ
were	*te*	*pūwar*	*tsakṣäṃ*	*war*	*paräṃ*
smell:OBL.SG	DET	fire:NOM.SG	burn:3SG.PRS	water:NOM.SG	bear:3SG.PRS

"The lord (or) the *ṣarya* takes this away; the army may reduce that to a scent; fire burns it; water carries it (off)". (cf. Peyrot 2013: 705)

Kim argues that the sequence *saswe ṣarya* has a sort of official meaning, and thus translates it as "lord and lady" (see also Otto 2007: 114). Pinault (2013: 241-2 fn.3) is against this new interpretation. He claims that this passage constitutes a common topos in Buddhist literature that deals with the impermanence of mundane goods, by enumerating all entities that caused the ruin of humans. This list is usually composed by five figures, i.e. kings (or rulers), thieves, fire, water, and unloving heirs (the five enemies of wealth), but sometimes also female characters are found. Accordingly, Pinault claims that *ṣarya* in B33

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[64] Adams (DTB: 713) questioned the part of speech of TchB *ṣarya*, since in his dictionary he claimed that it can be both a noun and an adjective referring to either masculine or feminine nouns. If so, it would be a sort of synonym of TchB *lare* 'dear'. However, we have no clear evidence that *ṣarya* can be used as an adjective, nor that it could refer to both male and female humans or deities (Kim 2009a: 112; Otto 2007: 111). Adams mainly based his analysis on a passage from the *Araṇemi-jātaka*, in B85 a2: *ṣarya ammakki poñ ñ āppai mā ñiś cempaṃts rakṣatsents aiṣṣäṃ* "beloved mother, tell father not to give me to these rakṣas" (translation by Adams). However, as pointed out by Otto (2007) the fact that one can translate TchB *ṣarya* as an adjective does not mean that it was an adjective in Tocharian B. Indeed, in other passages, this term occurs as a vocative without any other noun with which it can agree. Therefore, rather two nouns are used in apposition. A more literal translation is: "Oh lady! Mummy! Tell dad that he mustn't give me to those rākṣasas!" (cf. Couvreur 1964: 240; Schmidt 2001: 314). Furthermore, we have several examples of double appositional nouns in similar constructions as in line a1 of the same document: || *tumeṃ uttare m(ñcu)ṣk(e) wcukaisa mātär lāntso eṅku* "Thereupon prince Uttara while grasping [his] mother, the queen, by the cheek…".

a4 means 'harlot, courtesan', as the "darling by profession". However, in some other Buddhist maxims it is not harlots that are said to cause the ruin, but women in general, as those who inevitably link man to mundanity, because in inspiring love and affection they cause the perpetuation of men in the *saṃsāra*.[65] Furthermore, in other passages, TchB *ṣarya* refers always to respectable and virtuous women, like queens and princess (e.g. the Buddha's wife Yaśodharā and the wife of king Araṇemi). As a consequence, I do not think that the passage in B33 a4 implies that *ṣarya* means 'harlot' and Pinault's argument is therefore not sufficient to invalidate the translation 'mistress, lady'.

Let us see all attested forms of this noun: it is inflected eight times as a vocative (IT111 b3-4, AS15C b4, NS18 b1, NS699 b4, B85 a2, B91 a6, B516 b6), twice as a nominative (NS49 b5, B33 a4), and once as a comitative (AS15 b4).

Starting with the vocative, in IT111 TchB *ṣarya* refers to a queen, but the document is very fragmentary, the character that is speaking is ambiguous, and thus also the translation of our noun (b3 /// *maimañcu ṣarya oro*(*tse*) /// "...oh excellent one! Oh *ṣarya* ... great ..."; b4: ///*ritstse ṣarya kre*(*nt*) /// "... *ṣarya* ... good ..."; for the edition, see Peyrot 2007: n° 111). On the other hand, in AS15C someone talks with queen Yaśodharā and informs her about the sender of a gift:

AS15C b4

ṣarya	*ce*	*hār*	*saswe*	*epiyacäññe*	*lywā-c*
VOC.SG	this:OBL.SG	necklace:OBL.SG	lord:NOM.SG	memento:OBL.SG	send:3SG.PRT-2SG.SUFF

"Oh *ṣarya*, the lord sent this necklace to you as a memento". (cf. Pinault 1989a: 189)

In this passage, a servant delivered the necklace to Yaśodharā on behalf of the lord, and thus TchB *ṣarya* should be translated with a kind of official and reverential value. Therefore, the meaning 'lady' fits well here. Likewise, in NS18 a maidservant addresses to a female character (probably princess Mitrakāminī in line a2) the following question: *ṣarya candraprabheṃ mäñcuṣkemeṃ kekamus*(*a*) "Oh *ṣarya*, did you come from prince Candraprabha?" (NS18 b1). Also here, the translation of *ṣarya* as 'lady' is preferable.

The passage in B516 is difficult. We find two characters, Yaśodharā and a female door warden named Priyaśāriṇi, but it is unclear who the speaking character is: b6 *lyelyakormeṃ weṣṣäṃ ṣarya* (– –) *yaśodhara lāntsa memīyus*(*a*) /// "After having seen (this), she speaks: «Oh *ṣarya* [...], queen Yaśodharā, deceived (by)...")". What is clear is that in all aforementioned passages, the voc.sg. *ṣarya* is always used by servants when referring to princesses or queens.

All other vocative forms come from the *Araṇemi-jātaka*. In two passages (B85 and NS699, which both contain the same portion of text), prince Uttara speaks to his mother

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[65] Several Khotanese passages about the wiles of women can be compared, e.g. chapter 19 of the Book of Zambasta (the so-called *straiya-parivāra* 'chapter concerning woman'); 23.172-3 of the same text; a lyrical poem (Kumamoto 2000); the tales of the animals in the Rāmāyaṇa (133-149); passages in the Book of Vimalakīrti (218), etc.

(B85 a2 *ṣarya ammakki poññ āppai mā ñiś cempaṃts rakṣatsents aiṣṣäṃ* "Oh *ṣarya*! Mummy! Tell dad that he mustn't give me to those rākṣasas!"), while in another passage (B91) king Araṇemi speaks to his wife (a6 *ṣarya kauṃ (s)ū (pe)rn(e)w t(a)kā-ñ* "Oh *ṣarya*! This day has become a glorious one for me"). In these texts, TchB *ṣarya* can be translated with 'beloved one, dear one', although a more official meaning 'oh lady' is possible too.

Apart from B33, TchB *ṣarya* is probably attested as a nominative also in NS40 b5, where it can be translated both as "lady" and "beloved woman" (/// *m(akā-yk)ne tarśauna pälwāmane ṣarya* ///, "...lamenting the deceptions of many sorts, the *ṣarya*...", cf. Pinault 2015b: 154).

Finally, the comitative is attested once:

B496 a3-4

sanai	*ṣaryompa*	*śāyau*	*karttse(ś)*	*śaulu-wärñai*
one:OBL.SG	COM.SG	live:1SG.PRS	good:ALL.SG	life-long

"I live for the good a life-long with a single *ṣarya*".

Even though this leaf has a clear love content, both 'lady' and 'lover' may fit well into the context. One may therefore wonder whether the basic meaning of TchB *ṣarya* is 'lady, mistress', and that 'beloved woman' is a later meaning (Kim 2009a: 112), perhaps influenced by the fact that this noun is mostly attested in the vocative, which gives a sort of affective pragmatic nuance to its meaning and/or translation.[66]

We now turn to the etymology of TchB *ṣarya*. In the past few decades, it has been attempted to link this noun to TchB *ṣar* 'hand', by postulating a substantivised possessive adjective (see Van Windekens 1976: 449; Hilmarsson 1987a: 88). This etymology is still accepted by Adams (DTB: 713), who implausibly reconstructs PIE *$\acute{g}^h eser\text{-}iHeh_2$- '(one) at hand' → 'the beloved' (cf. Gk. χειρός 'under control'). The semantic parallel offered by Icelandic *hand-genginn* 'favourite' is too meagre to support this hypothesis.

In recent times, Otto (2007) argued that the noun is a derivative in *-ih_2 from the verbal root PIE *ser- 'to attach, connect' (LIV²: 534-5, cf. Lat. *serō* 'to link, join', Gk. εἴρω 'to knit together'). The semantic evolution would have been 'the one who is (physically/mentally) attached' → 'the one who is beloved', via the metaphor of love as a physical/mental attachment (see also Willi 2010: 252-7). From the phonological point of view, this analysis works fine, but from the semantic point of view there are some flaws. Indeed, there is no clear evidence that Tocharian speakers could have considered the physical closeness to both a mother and a lover as aspects of one and the same notion (cf. Kim 2009a: 113). Furthermore, and most importantly, we have no other clear continuants of the PIE root *ser- 'to attach, connect' in Tocharian.

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[66] For the sake of comparison, one could notice that the Tocharian A word for 'lady', TchA *nāśi* (without equivalent in Tocharian B), is mostly attested with vocative value (cf. A106 a6, A149 a3 and b4, probably YQ III.5 a7, and A160 a6).

The inflectional class to which TchB *ṣarya* belongs suggests that we are dealing with a very old derivative or at least with a "noun belong[ing] to the oldest layer of the Tocharian lexicon inherited from Proto-Indo-European" (Kim 2009a: 114). Only two scholars have taken into consideration this important piece of evidence in their etymological discussions. They are Pinault (1989: 58; 2008: 486) and Kim (2009a). For this reason, I will present their proposals in more detail.

Pinault argues that TchB *ṣarya* is a *devī́*-derivative of the PIE word for 'sister', thus PIE *$sué$-sr-ih$_2$* > *$s'əsrya$* (palatalisation) > *$ṣəṣərya$* (assimilation) > TchB *ṣarya* /ṣə́rya/ (simplification). At first sight, this development seems difficult, because it requires some irregular changes. However, the fact that PIE *$suésor$-* is continued in Tocharian as TchB *ṣer*, A *ṣar*, i.e. with the same assimilation and syllabic simplification, may be used in support (Pinault 1989: 58).

From a historical point of view, PIE *$suésor$-* can be analysed as an original compound of the reflexive pronoun *$sué$-* and the noun *ser-/sor-* 'woman'. The latter can in turn be a good candidate for our Tocharian B noun. This analysis has been proposed by Kim (2009a), who claims that TchB *ṣarya* is the regular outcome of PIE *ser-ih$_2$* (*h_1-ser-ih$_2$* in his notation). In most of the Indo-European languages, the noun *ser-/sor-* is attested as the second member of compounds or it has been grammaticalised as a suffix. Besides PIE *$suésor$-* 'sister', examples include: the feminine numerals for 'three' and 'four' in Indo-Iranian and Celtic (cf. OIr. *téoir*, *cethéoir*, Ved. *tisráḥ*, *cátasraḥ* < *$trisr$-, *k^wetesr-) and the Hittite feminine suffix *-($š$)$šara$-* (cf. Hitt. *išḫa-ššara-* 'mistress' from *išḫa-* 'master'). [67] Probably, also Lat. *uxor* 'wife' belongs here, if an original compound (Ernout & Meillet 1951: 1341; Luján 1996; Harðarson 2014: 32-35; *contra* Pinault 2013: 248ff. with references). However, some other Indo-European languages show continuants of *ser-/sor-* as a free word, even if it is always enlarged with suffixes. We can mention: the thematised Cuneiform Luw. *$ašra/i$-* 'woman', inferred on the basis of *ašrul(i)-* 'female', *ašrulāḫit-* 'womanhood' and *ašraḫit-* 'id.' (cf. Pinault 2013: 246-7 and Harðarson 2014: 38-41 for the origin of initial *a*-); the theonym Gk. Ἥρᾱ < *$Sérā$ < *$séreh_2$* (Willi 2010); YAv. *hāirišī-* 'woman' < *$sér$-is-ih$_2$*; and probably YAv. *å̄ŋhairī* 'id.' as if from *(h_1)-eh$_1$-ser-ih$_2$* 'belonging to woman' (as per Harðarson 2014: 41ff.). [68] According to Kim, TchB *ṣarya* may be added to this list, too.

A further objection put forward by Pinault (2013) is that a recharacterisation of a feminine word by means of the feminine *devī́*-suffix is redundant. [69] However, the forms

[67] See recently Gąsiorowski (2017) for hypothetical continuants of *(-)sr-ih$_2$* in Germanic.

[68] Kim (2005; 2009a) proposes to add Ved. *strī-*, YAv. *strī-*, Khot. *strīyā-*, Oss. Digor *silæ*, Iron *syl* to this list, but the origin of the dental stop in these forms would be very difficult to justify both phonologically and analogically. See the criticism by Pinault (2013: 242).

[69] Pinault (2013: 241-2) further claims that Tocharian has already two terms for 'woman' (the generic TchB *klyiye* 'woman, female' and the specific TchB *śana* 'wife'), and that a third noun with similar semantics would be unnecessary, because it would partially overlap in meaning with *śana*. This criticism, however, does not hold, because it is hardly surprising that the lexicon of a given language has cases of quasi-synonymy. Actually, a good example in this sense is Tocharian A, which,

just discussed point to the reconstruction of an acrostatic root noun *sor-/ser- that lost its autonomy as a free word soon after PIE, since it became a feminine suffix, a second member of compounds, or it has always been recharacterised with some other suffixes. As a consequence, the claim by Kim (2009a) that PIE *ser-/sor- has been enlarged with the productive and highly transparent derivational suffix *-ih_2 cannot be discarded so easily, although the lack of any exact morphological match of *ser-ih_2 in other Indo-European languages may require some caution.

To conclude, whatever ultimately the root, TchB $ṣarya$ is derived with the ablauting feminine suffix *-ih_2/-$i̯éh_2$- (of the $devī́$-type). Thus, the protoform from which this noun comes from must have had the same inflection as TchB $lāntsa$: nom.sg. -ya is the outcome of nom.sg. *-ih_2 > *-$yă$ > PTch *-ya, while the obl.sg. -yo is from the weak stem *-$i̯eh_2$- > *-$yā$- > PTch *-$yå$.

3.5.1.3. Summary

Summing up, we have seen that the inflection of the feminine substantives belonging to the $śana$-type has to be interpreted as the outcome of the archaic proterodynamic inflection in *-h_2/-$éh_2$- and *-ih_2/-$i̯éh_2$-. In a Proto-Tocharian stage, the weak stem (or probably the genitive form) has been reinterpreted as the Tocharian oblique. The reason why this reanalysis took place is easy to envisage: after the apocope of final consonants in Pre-Proto-Tocharian, the nominative and accusative merged formally. If this interpretation has already been proposed in order to explain the inflection of TchB $śana$, as far as the two other nouns are concerned, it was usually assumed that the PIE acc.sg. *-ih_2-m > PTch *-ya had been analogically modified to PTch *-$yå$ after the obl.sg. $śano$ (Winter 1981: 938; Pinault 2008: 486; Malzahn 2011: 89 fn.14, etc.). However, the $śana$-type is not a productive inflectional class, since it is confined to isolated feminine substantives. If we assumed that TchB $śana$ is the only noun whose inflection is original, then TchB $lāntsa$ and TchB $ṣarya$ are not expected to be analogically included in this class, but rather in the $aśiya$-type, which is a productive class of feminine nouns referring to female entities. Analogical extension to this inflectional type would have also been supported by the fact that the majority of the $aśiya$-nouns have (suffixal) -y- or palatalisation/assibilation of the stem final consonant, just like TchB $lāntsa$, A $lānts$ (assibilation) and TchB $ṣarya$. As a consequence, the inflection of TchB $lāntsa$ and TchB $ṣarya$ must be original.

In conclusion, all nouns of the $śana$-type have continued the archaic inflection inherited from Proto-Indo-European: the contrast between nom. sg. -$^{(y)}a$ vs. obl. sg. -$^{(y)}o$ mirrors the ablauting alternation between the full and the zero grade of the suffix *-(i)h_2,*-($i̯$)eh_2-, where the original genitive singular has been reanalysed as the Tocharian oblique.

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besides TchA k_uli and TchA $śäṃ$, has a third noun that precisely means 'lady', i.e. TchA $nāśi$ (on which see §3.5.2).

3.5.2. THE *aśiya*-TYPE

Tocharian B nouns with nom.sg. *-ʸa*, obl.sg. *-ʸai* and their Tocharian A correspondents

The nouns belonging to the *aśiya*-type are grammatically feminine and denote natural female referents. This is therefore a feature that the *aśiya*-type and the *śana*-type have in common. On the other hand, these two inflectional classes are clearly distinct as regards their inflection and productivity. The two major inflectional characteristics distinguishing their paradigms are the oblique singular and the stem forming the derivatives and the plural: in the *aśiya*-type, the former ends in *-ʸai-*, and the latter in *-ʸa-*. Furthermore, the great majority of these substantives show palatalisation of the stem-final consonant in both the singular and the plural inflection. The paradigm of the Tocharian A equivalents has different but uniform inflectional patterns: a usually unmarked nominative singular, obl.sg. *-āṃ*, gen.sg. *-e*, and the differentiated plural *-āñ| -ās*.[70] The Tocharian paradigms are therefore identical to the feminine adjectival type ending in pl. TchB *-ana*, TchA *-āñ| -ās* (see §4.3.3.1).

From a synchronic point of view, the *aśiya*-type is very productive: if a new feminine noun with female referent needs to be created, it is always added to this class. Furthermore, several feminine literary and non-literary proper names belong here, mostly borrowed from Sanskrit or Uyghur (e.g. the girl TchB *Cañca*, obl. *Cañcai*; the princess TchB *Nānda*; the queen TchB *Yaśodhara*, obl. *Yaśodharai*; the queen obl. TchA *Kṣemāṃ*; the Uyghur proper name TchA *Kutluk*, obl. *Kutlukāṃ*, see Carling 2009: 148 and Ching 2010: 440 fn. 221). In Tocharian B, these loanwords are sometimes extended either with the suffix *-śka* or with *-kka* (TchB *Lariśka*, *Priśka*, *Räknāśka*, etc.).

The most representative member of this class, i.e. TchB *aśiya*, A *asi* 'nun', is also a loanword, from either OKhot. *aśiā-* 'id.' or a Middle Indian language.[71]

The derivational processes involved have been described in the previous chapter (§2.4.2) and analysed thoroughly by Malzahn (2013) and Hartmann (2013). In this paragraph, I focus on major derivational and etymological patterns that these nouns have in common. Indeed, a curious thing that should be highlighted is that no nouns directly inherited from Proto-Indo-European belong to the *aśiya*-type. Indeed, inherited nouns that figure in this class have always been involved in some derivational process. Examples

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[70] In Tocharian A, nouns of the *aśiya*-type usually end in a consonant, or in *-i* in the nominative singular. Sporadic cases of final *-ī* and *-ā* are attested, but they are loanwords from either Sanskrit or Tocharian B.

[71] In my view, it is still uncertain if Tocharian borrowed this word from Khotanese or not. Indeed, the noun is neither of Tocharian nor of Khotanese origin, but it may have been borrowed in both languages from a Middle Indian form linked to Skt. *arya-/ārya-* 'noble'. The source from which the Khotanese word derives is usually reconstructed as Prākrit *aźyā-* (Gāndhārī ?) < *ayyā* (cf. Pāli *ayyā*), in turn from Skt. *āriyikā-* (Bailey 1967: 9). This Prākrit *aźyā-* may have been directly borrowed in Tocharian as *aśya-*. For the phonological development *y > ś* [ź] in Prākrit, see von Hinüber (2001: 174).

include: the substantivised adjective TchB *eṣerña** 'sister' (attested only in the plural *eṣerñāna* in B107 a5 and b3) < PTch *æ(*n*)-*ṣær-ña* (Pinault 2008: 129); TchB *ṣerśka* 'little sister', which displays the same base of the previous noun but extended with the suffix -*śka*; TchB *śamñāṃśka* 'girl' (on which see below).

The feminine suffix -(*ñ*)*ña* is of adjectival origin: etymologically, it is the paradigmatic feminine form of TchB -*ññe* (Van Windekens 1979: 105, 123; Malzahn 2013: 115f.; see §4.3.3.2). It is also the only native suffix used for creating oppositional feminine nouns. In some cases, we have the substantivisation of both masculine and feminine forms of a *ññe*-adjective, as in *ostaññe* 'male householder' : *ostañña* 'female householder' and *riññe* 'male citizen' : *riñña* 'female citizen'. In some other cases, -*ñña* is clearly an independent morpheme. This implies that TchB -*ñña* has been grammaticalised as a feminine suffix in the history of Tocharian.[72] Examples are: TchB *ñäkteñña* 'goddess' from *ñakte* 'god', TchB *kaṭapūtañña** 'female demon' (= Skt. *kaṭapūtanī*-) from TchB *kaṭapūtane** (from Skt. *kaṭapūtana*-), TchB °*pläṅkṣiñña** 'female seller' from TchB °*pläṅkṣi* 'seller', TchB *yakṣañña* 'female yakṣa' from TchB *yākṣe* 'yakṣa'. There is no corresponding suffix in Tocharian A. Indeed, all nouns formed with TchA -*ññā* are loanwords from Tocharian B (e.g. TchA *ñäkteññā* from TchB *ñäkteñña*, cf. §2.4.2). Another frequent Tocharian B morphological process aimed at creating oppositional feminine nouns provides for the substitution of the final vowel of the masculine noun with TchB -*a*, as in *oṅkolma* 'she-elephant' from *oṅkolmo* 'elephant', *mañiya* 'female servant' from *mañiye* 'male servant' (borrowed from Iranian *mānẓa- 'servant', Tremblay 2005: 435), and *mcuṣka* ~ *mñcuṣka* 'princess' from TchB *mcuṣke* ~ *mñcuṣke* 'prince'.

All other suffixes, including TchB -*śka* and -*kka*, have been borrowed from Iranian (Klingenschmitt 1975: 149f.), the most common being TchB -*āñca*, A -*āñc* (Müller 1908: 47; Gershevitch 1961: 158). They are often used to form feminine nouns to loanwords from Indian. Examples are: TchB *brahmaṇāñc* (attested once in IT956 a2), A *brāmnāñc* 'female brahmin' (= Skt. *brāhmaṇī*-) from TchB *brāhmaṇe*, A *brāmaṃ* (loanword from Skt. *brāhmaṇa*-); TchB *upāsakāñca*, A *wāskāñc* 'female lay-discipline' (= Skt. *upāsikā*-), from *upāsake* '(male) lay-discipline' (loanword from Skt. *upāsaka*-); TchB *parivrājakāñca** 'female mendicant', from an unattested masculine borrowed from Skt. *parivrājaka*- 'mendicant'. In Tocharian A, this suffix is particularly frequent: TchA *karmavāckāñc** 'female Karmavācaka' from *karmavācak** (loanword from Skt. *karmavācaka*-); TchA *kānikāñc* 'girl, virgin'; TchA *ārāntāñc** 'female arhat' from *ārānt* 'arhat'; TchA *kränolāñc* 'adopted girl'; TchA *pravārāpakāñc* '?' (cf. Tamai 2014: 391 fn. 88); TchA *ṣāmnerāñc* 'feminine novice' from *ṣāmner* 'novice'; *pretāñc* 'female Preta' from *pret* 'Preta' (loanword from Skt. *preta*-); cf. also TchA *mäśkitāñc* 'princess' from *mäśkit* 'prince'.[73]

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[72] On the value of TchB -*ññe* and its grammaticalisation as a feminine suffix, see §4.3.3.1.

[73] As pointed out by Pinault (2015: 173ff.), TchA *mäśkit* can be used both with masculine and feminine referents. The specific feminine *mäśkitāñc* is probably a secondary form, which corresponds semantically to TchB *mcuṣka* ~ *mñcuṣka*.

There are two Tocharian A members of the *aśiya*-type whose origin deserves to be treated in more detail. They are TchA *śomiṃ* 'girl' and TchA *nāśi* 'lady'.

The first noun is usually interpreted as a derivative of the masculine *śom** 'boy' (attested once in A63 a2 as an oblique TchA *śomäṃ*), by means of the suffix TchA -*iṃ*, which is equated with the feminine suffix TchB -(*ñ*)*ña* by Poucha (1955: 327) and Klingenschmitt (1994: 368). However, I found no other feminine nouns built with the feminine suffix TchA -*iṃ*, and I therefore see no reason for equating TchB -*ñña* to TchA -*iṃ* in *śomiṃ* 'girl'.

On the other hand, Peyrot (2012: 193) links TchA *śomiṃ* 'girl' to the adjective TchB *śāmña*, which is the feminine form of *śāmñe* 'human'. Although the derivational process involved is obscure (DTB: 682), TchB *śāmñe* seems to be a secondary relational adjective in -*ññe* from TchB *śaumo* 'human being' (cf. TchB *śay-* ~ *śaw-* 'to live', Gk. ζώω, Ved. *jīvati*, YAv. *juuaiti* < PIE **gʷih₃-u̯e/o-* 'to live'), with reduction *-*au-* > -*a-* before a consonant cluster. The derivation of TchA *śomiṃ* from PTch *śawməñña works phonologically fine, but the fact that Tocharian A does not show any continuant of the correspondent masculine *śawmənñæ is suspicious.

The masculine TchA *śom** 'boy' has long been equated with TchB *śaumo* 'human being' (Pinault 2008: 520). They derive from PTch *śawmo, an original adjectival derivative in -*mo* < PTch *-*mo*(*n*) from PTch **śaw-* 'to live'. Now, since TchA *śomiṃ* inflects as the feminine counterpart of an adjective in TchB -*mo*, A -*m* (of the *klyomo*-type, cf. nom.sg.f. TchB *klyomña*, A *klyomiṃ*; see §4.3.3.2), I believe that *śomiṃ* and *śom** belonged to the same adjectival paradigm in Proto-Tocharian, which can be reconstructed as follows: nom.sg.m. *śawmo, obl.sg.m. *śawmon; nom.sg.f. *śawməñña, obl.sg.f. *śawməñña (similarly, Pinault 2008: 520).

In Tocharian A, both the masculine and the feminine have been substantivised with the meaning of 'boy' and 'girl', while in Tocharian B only the masculine survived with the generic meaning of 'people, man' (but with the deviant plural TchB *śāmna*, on which see §3.6.1.3). The expected Tocharian B counterpart of TchA *śomiṃ* is probably attested in the problematic form TchB *śamñāṃ-śka* 'girl'. Adams (DTB: 678) improbably segmented this noun as *śamñ-āṃśka*, claiming that TchB -*āṃśka* "denotes females". However, this hypothetical suffix is not attested elsewhere. Rather, TchB *śamñā*° is to be linked etymologically with TchA *śomiṃ* as the regular outcome of PTch *śawməñña. The final nasal in the Tocharian B stem *śamñāṃ-* may have been taken from *somśke* 'dear son' (cf. also the much less conclusive derivatives *ylaṃśke* 'young gazelle', *wlaṃśke* 'soft, pliable').[74]

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[74] Even in these forms the origin of the nasal is debated. Klingenschmitt (1975: 150ff) and Winter (1985) argue that -*ṃ*- /-n-/ has been analogically extended after the accusative singular of the *n*-stems. This analysis is convincing in the case of *somśke*. Klingenschmitt (1975: 154) seems to go a little further: he argues that the -*ṃ*- in *śamñāṃśka* is to be interpreted as an archaic residue of the Proto-Tocharian state of affairs, where the accusative *-*an* and the (dative-)locative *-*ay* were still formally and functionally distinguished. Afterward, Tocharian B extended *-*ay* as the oblique, while Tocharian A has further reanalysed the locative as a genitive *-*ay* > -*e*. However, the obl. sg. -*ṃ* is only limited to masculine nouns in Tocharian B, and its spread to the feminine in Tocharian A seems

The second noun, TchA *nāśi* 'lady, mistress', is the feminine counterpart of TchA *nātäk* 'lord, master'. These two words are supposed to be the equivalents of Greek ἄναξ, -κτος 'lord, ruler' (cf. Mycenaean *wa-na-ka*, Beotian Ϝάναξ, etc., and also OPhrygian *vanak*, if not borrowed from Greek) and ἄνασσα, -ης 'lady, queen'. Winter (1970: 53) first proposed this lexical isogloss, which is today still supported by Adams (2017: 1376).

However, there are serious problems with this etymology: (1) the mismatching order of the consonant -*t*- and -*k*- in the masculine noun, and (2) the loss of initial **u̯*- in Tocharian. Moreover, the reconstructed term from which the Greek word derives is a puzzle and recent etymological dictionaries raise the possibility of a loanword from a non-Indo-European language (Chantraine 1999: 84; Beekes 2010: 98-9). On the other hand, if Gk. ἄναξ is inherited, the most promising etymology has been proposed by Szemerényi (1979: 217), also followed by Hajnal (1998: 66). Szemerényi reconstructs an endocentric determinative compound PIE **u̯n̥-h₂eǵ-t-* 'one who led the tribe', whose first member was PIE **u̯en-* 'kin, tribe', and the second **h₂eǵ-* 'to lead'.[75] The final -*t* is interpreted as an agent suffix. If one wanted to link TchA *nātäk* to this protoform, a metathesis **kt > *tk* should be postulated, which is without parallel, however.[76] Furthermore, the loss of the semivowel in such a phonetic environment is also unexpected. All these phonological difficulties invalidate the etymological link between Tocharian and Greek: their formal resemblance is totally accidental.

Van Windekens (1976: 313) connected TchA *nātäk* to the verb TchA *nätk-* 'to hold off, push away' (see also Willms 2010: 251 fn.92), but this proposal has flaws from both the formal and the semantic point of view. On the formal level, we should postulate a very old derivative built on a lengthened **o*-grade of the root (cf. instead the τόμος-derivatives, TchB *snai-netke* 'unprompted', TchA *natäk* 'urge, pressure', Malzahn 2012: 167). On the semantic level, a semantic development 'the one who pushes away' → 'the lord' does not seem reasonable to me.[77]

Since TchA *nātäk* cannot be derived from any internal source, I looked for a foreign origin. One would be tempted to link TchA *nātäk* 'lord' to Skt. *nāthá-* (m.) 'protector, possessor, lord' (MW: 534; SWTF: III, 15; see Pisani 1941-1942), which can also be found in Pāli *nāthá-*, Pkt. *ṇāha-* and in Gāndhārī *nasa-*. This noun is frequently attested in apposition to gods and men, cf. Skt. *govinda-nātha-* name of Saṃkara's teachers, *nāka-nātha-* 'sky-lord',

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to be a recent and independent development. Furthermore, the origin of TchB *śamñāṃśka* seems to be quite recent, probably of Pre-Tocharian B stage, also because we have no Tocharian A equivalent of the suffix TchB -*śke*/-*śka*.

[75] See Willms (2010) for a slightly different reconstruction, which does not invalidate however the morphemic segmentation.

[76] In order to get out of this problem, Winter (1970: 53f.) reconstructed PIE **wnatk-* and further assumed a metathesis of the cluster **-tk- > *-kt-* in Greek (like **τίτκω > τίκτω*). However, he did not give any etymological segmentation of the protoform.

[77] Following Thomas (1964: 110), Van Windekens erroneously translated TchAB *nätk-* as 'soutenir, appuyer', and thus claimed that TchA *nātäk* originally meant 'qui soutient, puissant'. See Jasanoff (1978: 39) for the correct meaning of the verb.

loka-nātha- 'saviour of the world (epithet of the Buddha)'. Furthermore, a *ka*-extended variant of Skt. *nātha-* is also attested: Skt. *nāka-nāthaka-* 'sky-lord', *gaṇa-nāthaka-* 'epithet of Śiva; of Gaṇeśa; leader of the attendants of any god; head of an assemblage corporation', *vṛkṣa-nāthaka-* 'lord of trees', *gaṇa-nāthakā-* 'Durgā' etc. It is therefore probable that Tocharian borrowed this word from a Middle Indian intermediary of Skt. *nāthaka-*, integrating it as either PTch **natakæ* (cf. TchA *kātak**, B *kattāke* 'householder' < **ka(t)takæ* from a Middle Indian *ka*-extended variant of Skt *gṛhasta-*, cf. Khot. *ggāṭhaa-*, Pinault 2008: 69), or PTch **natəkæ* (cf. TchA *sāṃtäk*, B *sāṃtke* 'medicine, remedy' < **santəkæ* from a Middle Indian equivalent of Skt. *śāntaka-*).

It is clear that TchA *nāśi* 'lady' is the derived feminine counterpart of TchA *nātäk*. There may however be an additional problem related to this form. Indeed, evidence for the palatalised variant of the cluster *-tk-* is extremely meagre in Tocharian. In the verbal roots in *-tk-*, only the *-t-* get palatalised, yielding *-ck-* (cf. TchA the gerundive *kāckäl* from TchA *kātk-*, see Burlak 2000: 128; Malzahn 2010: 460f.; Peyrot 2013: 76). The same kind of palatalisation also occurs in TchA *nācki* 'lords', the nom.pl. of *nātäk*. This nom.pl. is suspicious, since it is limited to this noun and TchA *ratäk* 'army', whose instr.pl. *rackisyo* (A183 a5) is very irregular (TEB §181).[78] I see two possibilities to explain the palatalisation in TchA *nāśi* 'lady'. If PTch **-tk-* always palatalised as *-ck-*, then TchA *nāśi* cannot derive from TchA *nātäk* directly. The derivation probably occurred at an earlier stage. Accordingly, TchA *nāśi* is derived from the earlier **natakæ/*natəkæ*, through the addition of the palatalising feminine suffix **-ʸa*. We can therefore reconstruct the following development: **natakʸæ* > **nataśʸa* (palatalisation) > **natəkśʸa* > Pre-TchA **nātśi* > *nāśi* (assimilation and simplification). Otherwise, one may think that PTch **-y-* palatalised the cluster **-tk-* differently, yielding Pre-TchA **-śś-*: **natkʸa* > **naśśi* > TchA *nāśi* (Hackstein 2004: 175, 2017: 1328).

To sum up, we have seen that not a single member of the *aśiya*-type can be traced back to Proto-Indo-European, since all nouns belonging to this inflectional class are of late origin. Therefore, it could be concluded that the *aśiya*-type became a productive class of feminine nouns only in a relatively recent Proto-Tocharian period. Indeed, given the fact that we have clear examples of nouns with the same origin and matching inflections in both Tocharian languages, the origin of this inflectional class must be sought in a Proto-Tocharian stage. Taking the common antecedent of TchB *aśiya*, A *aśi* as an example, we can reconstruct the following paradigm:[79]

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[78] *Pace* TEB §181, the nom.pl. of TchA *ratäk* 'army' is not *racki*, but probably *rackiñ* (THT1134 a3; cf. obl.pl. *rackis** A183 a5).

[79] The Proto-Tocharian paradigm of the *aśiya*-type follows the reconstruction of the Proto-Tocharian paradigm of the feminine adjectival inflection (Peyrot 2012: 200-4). For further remarks on this topic, see §3.7.2.5, §4.3.3.1.

Table III.9. Evolution of the *aśiya*-type from Proto-Tocharian to Tocharian A and Tocharian B

	PTCH		
NOM.SG.	*aśəya*	>	TchB *aśiya*
		>	TchA *aśi*
OBL.SG.	*aśəya*	>>	TchB *aśiyai*
		>>	TchA *aśśāṃ*
GEN.SG.	*aśəyay*	>>	TchB *aśiyāntse*
		>	TchA *aśśe*

As can be seen, in a Proto-Tocharian stage nominative and oblique formally overlapped. As a remedy, in both Tocharian B and Tocharian A the oblique was recharacterised, but in a different way: Tocharian B reanalysed the gen.sg. *-ay* (< dat.sg. PIE *-eh₂-ei̯*) as the oblique and further acquired the gen.sg. *-ntse* from the *n*-stems, while Tocharian A turned the original dative PTch *-ay* > TchA *-e* into the genitive and took *-āṃ* from the *n*-stems (see recently Peyrot 2012). As we will see, this evolution coincides with that of the feminine in the adjectives with which the *aśiya*-type shares its inflection (see §4.3.3.1).

On the other hand, the plural inflection poses a special problem, because the comparison between the two Tocharian languages invalidates a direct Proto-Tocharian reconstruction. Indeed, where Tocharian B attests an undifferentiated plural ending *-a-na*, Tocharian A has the differentiated plural nom. *-āñ*, obl. *-ās*. Since this mismatch can also be found in the adjectival inflection, where TchB *-ana* consistently corresponds to TchA *-āñ| -ās*, I will return to this problem in the next chapter (see §4.3.3, §4.3.4.4, §4.3.4.5). In the following, I will focus on the synchronic distribution and the diachronic evolution of the endings TchB *-na* and TchA *-äṃ* in the noun inflection.

3.6. ORIGIN OF THE PLURAL ENDINGS TCH B *-na* AND TCH A *-äṃ*

The two plural endings TchB *-na* and TchA *-äṃ* are usually considered to be the outcome of the original neuter plural of nasal stems, which underwent reanalysis: PIE *-n-h₂* > *-n-ă* > PTch *-na* > TchB *-na*, A *-(ä)ṃ*. Despite this alleged common origin, they have a different distribution: there are no Tocharian B nouns with plural in *-na* matching Tocharian A nouns with plural in *-äṃ*. Their productivity is different as well: TchB *-na* is the plural marker of a fair number of nominals, while TchA *-äṃ* is confined to five substantives only. The aim of this section is to trace the origin of these plural markers, analysing their synchronic distribution and diachronic evolution. In the following paragraph, I will focus on Tocharian B; afterward I will deal with Tocharian A (§3.6.2). At the end of the section, I will comment on the collected data from a diachronic perspective (§3.6.3).

3.6.1. DISTRIBUTION AND EVOLUTION OF TCH B *-na*

A basic parameter to divide Tocharian B nouns with the plural ending *-na* is grammatical gender. We have seen that the members of the so-called *śana*- and *aśiya*-types are

feminine. With the exception of the masculine TchB *śaumo* 'man, person', all other Tocharian B nouns with plural in *-na* are alternating. This gender-based subdivision mirrors a formal one: feminine nouns are differentiated for the nominative and the oblique singular, while alternating nouns have one form for both the nominative and the oblique in the singular.

I have already discussed the feminine nouns in the previous section. The alternating nouns will be examined in the following paragraphs. On the basis of three factors (i.e. the singular paradigm, the nominal stem, and the phoneme preceding the plural marker), they can be grouped into various subclasses (TEB §§162-164). Since the aim of this section is to trace the origin of the plural marker TchB *-na*, it is more convenient to divide these nouns into two groups: (1) nouns that have the basic plural TchB *-na*; (2) nouns that have a slightly different plural TchB *-una*. The first group will be scrutinised below; the second group will be the topic of the subsequent paragraph (§3.6.1.2).

3.6.1.1. Alternating nouns with the plural ending TchB *-na*

Although TchB *-na* is more productive than the etymological correspondent TchA *-äṃ*, it seems to represent a closed category in the historical phase of Tocharian B. In this respect, an important evidence is that only a very few loanwords are morphologically inserted into this class (e.g. TchB *tsäṅkana* 'naked barley', if correctly identified as a loanword from Chin. *qīng* 青, an abbreviated form of *qīngkē* 青稞 'highland barley',[80] and probably TchB *karāk* 'water pot', on which see the main text below).[81]

Most of the Tocharian B alternating nouns with plural in *-na* show etymological and derivational problems. In certain cases, this ending is to be interpreted as an innovation; in some others, it can be traced back to Proto-Indo-European. The latter is the case of four nouns that all together make up a quite coherent subclass. The members of this subclass are: (1) TchB *ṣarm* (A *ṣurm*) 'motive, cause, origin', with variant plurals *ṣarmna*, *ṣärmanma*, *ṣärmana*, from PIE **sṷer-men-* (Lat. *sermō* 'speech') or PIE **(s)kʷer-men-* (cf. Skt. *kárman-* 'action, result', Lubotsky 1988a: 91);[82] (2) TchB *sārm* 'germinated seed', pl. *sārmna*,

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[80] See Ching (2010: 384, 2016: 52f.). Lubotsky & Starostin (2003: 264) claim that Chin. *qīng* 青 'blue, green' has also been borrowed in Tocharian as the adjective TchAB *tseṃ* 'blue' (see also DTB: 810). See also the discussion in Blažek (2016: 232f.) and Blažek & Schwarz (2017: 62-3).

[81] In his dictionary (DTB: 678-9), Adams refers to a noun *śaṃts* 'announcement' (from Skt. *śaṃsa-*), allegedly attested in the perlative plural in AS7H a6 *śaṃtsnasa spärkālñe westrä* "the dissolution is learned/spoken of by announcements" (ed. by Sieg 1938: 36; transl. by Adams). However, the current reading of the line is rather *pärnāññana (wäntarwa)ṃ(ts) ś(r)aṃts tūsa spärkālñe westrä* "the dissolution is therefore said [to be] the removing of external (objects)" (cf. Georges-Jean Pinault apud CETOM). TchB †*śaṃts* 'announcement' is therefore a ghost word.

[82] Peyrot (2008: 110) argues that the older plural must have been TchB *ṣärmanma*, since it is never attested in late and colloquial texts. He claims that *ṣärmanma* developed a plural in *-na* after dissimilation of the two labial nasals. Although this explanation is phonologically fine, I think it is morphologically less probable. First, as pointed out by Peyrot himself, the plural *-nma* is much more

sarmana, from PIE **sōr-men-* (Peyrot 2018: 19-20; DTB: 747; Blažek & Schwarz 2017: 207); (3) TchB *ñem* (A *ñom*) 'name', pl. *ñemna*, from PIE **h₁neh₃-men-* (or **h₃neh₃-men-*); (4) TchB *stām* 'tree', with irregular pl. *stāna* (> **sta(C)mna* (?))[83] from PIE **sth₂-men-*.

Their derivation from PIE **men*-stems is made evident by the final *-m* in the singular, which is from Pre-PTch **-mən* < PIE **-mn̥*. The Tocharian A correspondents have the final *-m* as well, but the secondary plural *-nt /-ntu* (cf. TchA *ṣurm* : *ṣurmant*, TchA *sārm* : *sārmäntu*).[84]

The plurale tantum TchB *särwāna* 'face, countenance' has occasionally been compared with Ved. *sr̥kvan-* 'corner of the mouth, lock-jaw' (cf. also Ved. *srákva-* 'tooth, fang', Schmidt 1980: 409; EWAIA: II, 783-4). There are two problems with this comparison, however. They are: (1) the unexpected loss of **-k-* (if original) and (2) the lack of cognates forms in other Indo-European languages. For these reasons, Hilmarsson (1989a) analysed TchB *särwāna* as a **men*-stem formed to PIE **streuH(d)-* 'to swell'. According to Emmerick (1990), a similar semantic development could be envisaged in Khot. *śśāman-* 'face', from PIE **k̑eu̯-* 'to swell'.[85] Otherwise, one may wonder whether TchB *särwāna* 'face, countenance' has been borrowed from a Middle Indian continuant of Skt. *sr̥kvan-*, although the cluster *-kv-* is expected to have yielded *-kk-* in Prākrit (Pischel 1981: 240; see further Schmidt 1987, 2018: 211; Hackstein 1995: 121f.).

Among nouns with doubtful etymology, we find TchB *kārak* (pl. *karākna*) 'branch (of a tree)' (cf. TchA *karak** 'wooden part of a bow', which is a hapax legomenon attested as a perl.sg. in A316 a1, Carling 2009: 102). Adams (DTB: 150) reports the nominative of this form as *karāk* /karák/, which is perhaps to be considered as a separate word. Indeed, one can argue that TchB *karāk*, with stressed last syllable, actually means 'pot, vessel'. This noun is attested three times only in AS13D at lines a4 (*kauṃ-pirko kalymi war past ñārka-ñ karā(k)* "water kept me away from the eastern direction, the vessel ..."), b6 (/// *ñiś karāk aimar war kewu* "... I will take a vessel and I will pour water"), and b7 (*karākmeṃ war kū(tär)*) "water from the vessel will be poured ..."). This *karāk* is a loanword from Skt. *karaka-* 'water-vessel'.

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productive than *-na*. Second, there are no other nouns with singular *-m* and plural *-nma*. As a consequence, I believe that the original plural is TchB *ṣarmna*, which is attested in two archaic documents (B133 a3 and THT1302 a3) and represents the less attested plural variant. Later, two competitive plurals have been created: *ṣärmanma* (since archaic stage) and *ṣärmana* (with epenthesis). The latter becomes the standard variant, since it is attested only in classical and late documents. A similar analysis can also explain the plural of *sārm* 'seed', with old plural *sārmna* and late plural *sarmana* (attested in the late document AS14.1).

[83] The expected plural form would have been ***stamana*, ***stāmna*, or ***stānma*. The lack of *-m-* in the plural led some scholars to reconstruct a PIE root enlarged by *-d-* (Hilmarsson 1986a) or *-s-* (Adams DTB: 777), with the subsequent loss of the labial nasal in the cluster *-Cmn-*.

[84] On the evolution of the PIE **men*-stems in Tocharian, see Malzahn (2006) and Pinault (2008: 495).

[85] See Adams (DTB: 750-1) for yet another etymology.

On the other hand, TchB *kārak* 'branch' (with stressed first syllable according to Hilmarsson 1996: 83) is attested once as *karak* (B281 b5) and twice as a plural, *karakna* (B554 a4) and *karākna* (B3 a8). The use of *-a-* (here /a/) instead of *-ā-* (/á/) is due to the archaic linguistic stage of B281 and B554. The long-spelled *-ā-* in the plural *karākna* /karákna/ (B3 a8) does not allow to reconstruct a nom.sg. *kārak* /kárak/ with any certainty. This word has been traced back to Proto-Indo-European by Adams (DTB: 150) and Hilmarsson (1996: 83).

However, one may also wonder whether TchB *kārak** 'branch' and *karāk* 'pot, vessel' are actually just one word and that the ambiguous spelling TchB *karak* in B281 b5 is to be interpreted as *karāk*. If so, this *karāk* would mean both 'pot' and 'branch of a three' and should be a loanword from Skt. *karaka-*, which is also used as a proper name of several types of plants (MW: 254).

We further find two pluralia tantum ending in TchB *-na* with a clear singulative meaning: TchB *ersna* 'appearance' and the hapax legomenon TchB *yasna** 'treasury' (cf. THT1114 a4 loc.pl. *prakrona yasnane* "in a firm treasury"). Adams (DTB: 103 and 526) argues that they are old derivatives of TchB *ere* 'form, appearance' and TchB *yasa* 'gold' respectively. The derivation of the first noun from a PIE *s*-stem *$h_3er\text{-}os\text{-}$ > TchB *ere* has long been accepted (cf. Gk. ὄρος 'mountain', Skt. *r̥ṣvá-* 'high').[86] The second noun is probably from *$h_2\mu esh_2$ > PTch *$\acute{w}\partial sa$ > TchB *yasa*, A *wäs*, an original collective formation (Pinault 2012: 197; Hackstein 2017: 1318-9; but see also Driessen 2003: 348-50, who explained TchB *yasa*, A *wäs* as a loanword from Proto-Samoyedic *$wesä$). If these derivations are correct, it can be argued that the plural ending PTch *-na* has been added in a Proto-Tocharian stage in order to recharacterise the plural form of some *s*-stems.

As far as TchB *ersna* is concerned, another possibility can be envisaged. It can be argued that this noun goes back to the plural form of an original heteroclitic paradigm. Comparative evidence may support this reconstruction. In Hittite, we find the heteroclitic stem *ḫaršar, ḫaršn-* 'head, person, beginning'. In the past decades, this noun has been variously linked to PIE *$\acute{k}ersh_2\text{-}s\text{-}r$, *$\acute{k}ersh_2\text{-}s\text{-}n\text{-}$ 'head', but this derivation has to cope with formal difficulties (Kloekhorst 2008: 314-6). For this reason, Goetze (1937: 492) suggested the comparison with Gk. ὄρος 'mountain' and further reconstructed PIE *$h_3er\text{-}s\text{-}r$, *$h_3r\text{-}s\text{-}n\text{-}$ (cf. also Hitt. *ḫarši-* / *ḫaršai-* 'high, risen' < PIE *$h_3ers\text{-}i$, *$h_3rs\text{-}e\underset{\cdot}{i}$-, Kloekhorst 2008: 315-6). From the formal point of view, this reconstruction works fine, and if we add TchB *ersna* < *$h_3er\text{-}s\text{-}nh_2$ it acquires even more credit. If so, Tocharian could have continued both the *s*-stem *$h_3er\text{-}os\text{-}$ > TchB *ere* and the derived heteroclitic stem *$h_3er\text{-}s\text{-}nh_2$ > TchB *ersna*.[87]

Although TchA *aräṃ* 'appearance, form' should belong here (Carling 2009: 20), it is unclear how it is related with TchB *ersna*, because the change *-rsn- > -rn-* is without

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[86] The fact that this noun is synchronically an *e*-stem (cf. the obl. pl. *ereṃ* in B566 a6) is secondary (cf. §3.8.1).

[87] In passing, it could be noted that the singular TchB *śalna* 'quarrel' may originally belong here as well, if it is an old plural form (which it seems to be). For an etymological suggestion, see Malzahn (2011: 100).

parallel in Tocharian A.[88] Rather than deriving TchA *aräṃ* from a different protoform (Van Windekens 1976: 149; DTB: 99), however, one may think that an original Pre-TchA **arsäṃ*, the regular outcome of PTch **ærsna*, has been influenced by the noun TchA *ar** 'form', the unattested Tocharian A counterpart of TchB *ere*. If so, TchA **arsäṃ* has first lost internal **-s-* and then has been reinterpreted as a singular by aligning the singulative meaning with the singular number (cf. §3.6.3).

3.6.1.2. Alternating nouns with the plural ending TchB -*una*

All other alternating nouns belonging to Class II.1 attest a slightly different plural formation ending in TchB -*eᵤna* / -*auna* or TchB -*una*. The historical interpretation of these markers is debated. Before pursuing this diachronic matter, however, these Tocharian B nouns and the Tocharian A matching forms have to be scrutinised closely from a synchronic perspective.

We find TchB -*eᵤna* / -*auna* in two separated groups. The first group contains lexical plurals with a clear singulative meaning. They are: TchB *palauna* 'praise', TchB *tarśauna* 'deception(s)', and TchB *krentauna* 'virtue(s)'. Tocharian A matching nouns are only found for the former two: TchA *paloṃ* and TchA *tārśoṃ*. Although they closely resemble their Tocharian B counterparts, these two nouns are grammatically singular. It can be argued that they were plurals in Proto-Tocharian and that Tocharian A has later aligned the singulative value of the meaning with the singular morphology of the number (see §3.6.3).

The second group consists of nouns that have TchB -*i* in the singular and TchB -*eᵤna* / -*auna* in the plural. They are: TchB *reki* 'word' : *rekauna* (TchA *rake* : *rakentu*), TchB *ṣewi* 'pretext' : *ṣewauna*, and TchB *yapoy* 'land' : *ypauna* (TchA *ype* : *ypeyu*).

Finally, TchB -*una* is the plural marker of only three nouns. Once again, their derivation is not clear. The first is TchB *akrūna* 'tears', which is only attested in the plural and is matched by TchA *ākär* (pl. *ākrunt*). The other two substantives are TchB *ṣotri* : *ṣotrūna* (TchA *ṣotre* : *ṣotreyäntu*) and TchB *lāṃs* : *laṃsūna* (TchA *wles* : *wlesant*).

Origin of TchB -*una*

The comparison between Tocharian A and B does not allow to reconstruct the Proto-Tocharian plural form of these nouns with confidence. In addition, the singular forms of some Tocharian B nouns do not match with their respective plural forms, since they seem to be the outcome of different Proto-Tocharian antecedents. This means that they cannot be reconstructed as mirroring the same PIE stem paradigm.

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[88] Actually, I found only one certain word where a -*rsn*- cluster can be shown to predate Proto-Tocharian. It is TchA |kärsnā-| (cf. TchB |kərsóna-|), the present stem of *kräsā*-, 'to know', where the cluster -*rsn*-, however, could have been easy restored (while TchA |kärṣnā-| 'to cut off' is from **|kärṣt-nā-|).

In the following, I will first focus on the previous etymological explanations of TchB -(*a*)*una*. Then, I will argue that this ending can be traced back to the *n*-form of heteroclitic stems in PIE *-*ur/n*-.

In the past decades, the origin of the plural morpheme TchB -(*a*)*una* has been a major topic of debate. One of the most cohesive discussions is that of Hilmarsson (1988a). His basic claims are: (1) the ending *-*una* has been abstracted from the plural *akruna* 'tears', and (2) the ending *-*auna* is a conglomerate marker, formed by the collective formation in PTch *-*a* and the new abstracted ending *-*una*. This proposal has to cope with some difficulties, however. First, some of the nouns with plural -*auna* attest a variant form -*e*ᵤ*na* (sometimes spelled -*ewna*) in archaic texts. Examples are: *krente*ᵤ*na* (B244 b1, B248 a2, B365 b4, *krentewnaṣṣe* B146 b8), *pale*ᵤ*na* (B248 b1), *rekewna* (THT1312 b6). This shows that the plural forms in -*auna* of classical Tocharian B – or at least a great part of them – are actually from older -*e*ᵤ*na* (Peyrot 2008: 43). The second difficulty concerns the origin of the element *-*una*. Indeed, it is unlikely that the bulk of its spread lies in its abstraction from a single plural form, namely *akruna* 'tears', where, moreover, the *na*-element is taken as secondary too (see above). For these reasons, Hilmarsson's proposal is to be rejected.

Adams (1990) dealt with the same topic. His main aim was to reconstruct hypothetical stems from which both the singular and the plural may have derived directly. Yet, his derivations are quite algebraic, since he reconstructs chains of derivational morphemes containing the nasal suffix PIE *-*h₁en*- as the last element. Furthermore, some of his explanations are phonetically dubious.

As pointed out by Malzahn (2006: 400), the fact that the formations in -(*a*)*una* are somehow related to the Tocharian B singular forms in -(*a*)*u* seems obvious at first glance, but after a closer scrutiny this statement seems cryptic.[89] Another explanation for TchB -*una* ought to be found.

In a way, I think Hilmarsson was right in trying to find a way by which the element -*una* could have been abstracted and then generalised to other formations that are etymologically unrelated to this plural ending. On the other hand, the bulk of this spread cannot be sought in isolated words, but rather in morphological formations where -*una* is an inherited morpheme. In the following, I will show that the marker PTch *-*una* was the original plural ending of the heteroclitic paradigms in *-*uer/n*-.

It has long been acknowledged that Tocharian inherited these PIE formations and that they were quite productive for a certain period. In a recent article, Pinault (2011) convincingly argued that the most productive type was derived with the suffix *-*u̯or* > PTch *-*wær*, a stem allomorph of the collectives in *-*u̯ōr* (Pinault 2011: 164).[90] This suffix became quite productive in Proto-Tocharian, where it was employed to form verbal

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[89] In a similar way, it is improbable that these nouns are the outcome of PIE *-*men*-stems (as per TEB §106) and therefore need to be related with the Tocharian B nouns of the *nāki*-type (with singular ending -*i* and plural -*nma*, on which see Pinault 2008: 495f.).

[90] The collective formation in *-*u̯ōr* may have continued in Tocharian only in isolated forms (see §3.6.2).

abstract nouns (Malzahn 2014a: 265). Examples include (Pinault 2011: 164): TchB *ārwer*, A *ārwar* 'ready, willing' < PTch **arwær* < PIE **h₂er-* 'to fit'; TchB *malkwer* 'milk' < **məlkwær* < PIE **h₂ml̥ǵ-* 'to milk', etc. In most of the cases, however, the outcome of PTch **-wær* has become synchronically opaque, as **-w-* has been lost between vowels. Examples include: TchB *yerter* 'wheelrim, fellow' < PTch **yærtæwær*; TchB *rser* 'hate' < PTch **rəsæwær*; TchB *karyor*, A *kuryar* 'commerce' < **kʷəryawær*.

In parallel to the formations in **-u̯or*, I believe there is evidence for claiming that Tocharian also inherited the regular paradigms in **-ur/n*, which followed the proterodynamic type in Proto-Indo-European. Pinault (2011: 164) claims that these formations were no longer productive in Tocharian, since they would be limited to relics. From a comparative point of view, the best example is TchAB *ṣñor* 'sinew' (pl. TchB *ṣñaura*), which has cognates in several Indo-European languages, like YAv. *snāuu̯arə.bāzura-* 'having arms like sinews', Ved. *snā́van-* 'sinew', *a-snāvir-á-* 'having no sinews', Gk. νεῦρον 'string, sinew', Lat. *nervus* 'sinew, muscle, nerve', Arm. *neard* 'sinew'. All these forms point to the reconstruction of a heteroclitic paradigm PIE **snéh₁-ur/n-*. The formal mismatch between the singular TchB *ṣñor* and the plural TchB *ṣñaura* has given some cause for concern, since they should be traced back to the same base PTch **snæwr-*. It is generally assumed that the singular PIE **snéh₁-ur > *snēu̯r̥* developed differently, because the expected PTch **ṣñæwər* (or the like) underwent some kind of contraction, yielding TchAB *ṣñor* (Þórhallsdóttir 1988: 199-200; Ringe 1996: 155-56).[91] For instance, Hilmarsson (1985a; 1986c) argues that PTch **ṣñæwər* first became **ṣñæwur* and then **ṣñowur* (through *u*-umlaut) > TchAB *ṣñor* (either with contraction or with irregular reduction of **-owr* to **-or*). But this solution is ad hoc and requires a significant number of unattested intermediate stages. A different explanation must therefore be found.

Lubotsky (1994a) dealt with the reconstruction of the PIE root **turḱ-*, its outcome in the Indo-European languages (Av. ϑβōrəštar- 'creator', Ved. *tváṣṭar-*, the god-creator, Gk. σάρξ 'meat', OIrish *torc* 'boar', etc.), and some related issues. One of these problems concerns the alleged metathesis of PIE **CurC* to **CruC* (AIGR: I, 206; Mayrhofer 1986: 161ff.; Meier-Brügger 2003: 98; Byrd 2015: 142-3). After having scrutinised the data that may testify

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[91] I could not find any strong example of a contraction of **-æwə-* to **-o-*. Ringe (1989) adduces the reduplicated preterite participle of root beginning with *w-*. For instance, he argues that TchB *ausu*, A *wasu* 'having put of (clothing)' (from TchB *wəs-*, A *wäs-* 'to wear') can ultimately be traced back to Pre-PTch **wæwəs(ə)wu*, which would have evolved according to the following path: **wæwəs(ə)wu* > PTch **wos(ə)wə* (> TchA *wasu*) > Pre-TchB **wowsəw* (reintroduction of *-w-*) > **owsəw* > TchB *ausu*. This reconstruction is quite cryptic and other solutions can be put forward. Indeed, TchB *ausu* can reflect PTch **wæ-wəs-u* directly, through a development of PTch **wæ* to TchB *o*, i.e. **wæ-wəs-u* > **wewsu* > **owsu* > TchB *ausu* (cf. 3sg.prt. TchB *otkasa*, from *wotk-* 'to separate') < PTch **wætksa*; see Peyrot 2010, 2013: 530). On the other hand, TchA *wasu* may be from **wæ-wæs-u*, as Michaël Peyrot (p.c.) pointed out to me (cf. also Malzahn 2010: 248). Furthermore, Tocharian B sequences of *-ewə-* and *-awə-* (< **-æwə-*) are attested (cf. e.g. obl.pl. TchB *kewäṃ*, A *kos* 'cows' < PTch **kæwəns* < acc.pl. PIE **gʷóu̯n̥s*; 2sg.act. *rewät* from TchB *rəw-* 'to open'; cf. also nom.sg. TchB *pernauntsa*, A *parnoṃts* < PTch **pærnewəntsa* < **-u̯ntih₂* (?), Pinault 2008: 525).

such a phonetic development, he concluded that "in PIE the metathesis *-ur- > *-ru- was phonetically regular in the final syllable only" (1994a: 191). I believe that Tocharian might bring new evidence in favour of this reconstruction.

Indeed, the plural TchB *ṣñaura* 'sinews' can be traced back to *ṣñewra*, which is from an older *ṣñewna* with generalisation of the *r*-stem, while the singular TchB *ṣñor* 'sinew' is from *ṣñœru < *snēru < *snéh₁-ur*, through older metathesis of *-ur# > -ru#* and Tocharian *u*-umlaut of internal *-œ-*, which has been regularly modified to *-o-*.[92] In addition, there are a dozen nouns with plural ending TchB *-wa*, A *-u* (*-wā, -unt*), of which the majority can in my view be traced back to heteroclitic stems in PIE *-ur/n-*. These nouns have a singular in TchAB *-r* and a plural form in TchB *-rwa*, A *-ru* (*-rwā, -ru-nt*). Examples include: TchB *ampär** 'limb, member' (pl. *amparwa*), TchB *kwarsär*, A *kursär* 'mile, vehicle' (pl. TchB *kwärsarwa ~ kursarwa*, A *kursärwā ~ kurtsru*), TchB *tarkär*, A *tärkär* 'cloud' (pl. TchB *tärkarwa*, A *tärkrunt*), TchB *yarpär* '± enclosure' (pl. *yärparwa*), TchB *tsaṅkär*, A *tsäṅkär* 'top, summit' (pl. TchB *tsäṅkarwa*, A *tsäṅkrunt*), etc. The morphological derivation of these nouns has not been clarified yet. Following Van Windekens (1944: 155f.; 1979: 15f.) and Isebaert (1980: 235; 2004), Adams (1990; DTB: s.v.; 2015: 178) argues they are old action nouns and verbal abstracts in *-r*, which have been extended with an *u*-suffix in the pre-history of Tocharian. The *u*-extension is obviously assumed to explain the unexpected *wa*-plural.[93] However, this explanation is debatable, since it fails to identify a reason behind the alleged spread of the inherited *u*-stems, which do not form a very productive category in Tocharian.[94]

I believe that the derivational and inflectional issues related to these nouns can be solved by analysing them as old heteroclitic derivatives in *-ur/n-*, which underwent the sound law *-ur > *-ru*. That is to say, all original *ur*-forms of the paradigm underwent metathesis in the strong cases, becoming *ru*-stems.[95]

As far as the plural paradigm is concerned, all these nouns, including those derived with the suffix PTch *-wær*, has lost the archaic *n*-form in the plural, since they have

[92] Through metathesis *-ur > *-ru* we can also account for other problematic forms, like TchA *kror*, B *kror-iya** 'crescent of the moon', as if from *gʰréh₁-ur* 'horn' (Hilmarsson 1985a, but this etymology has some problems, see §3.7.3.3), TchB *plor-iya* from *bʰléh₁-ur* 'blowing', and perhaps TchB *ñor* 'below', as if from PIE *néh₁-ur* (Hilmarsson 1986c).

[93] Cf. Adams (1990: 68): "These neuter *r*-stems were typically extended as neuter *u*-stems at some point in pre-Tocharian".

[94] Of a slightly different opinion is Pinault (2008: 493), who claims that the reanalysed plural PTch *-wa* of the old *u*-stems spread analogically to some stems and, in particular, to some *nomina actionis* in *-l* and *-r*.

[95] The loanwords assimilated to this class, i.e. TchB *kottär* (pl. *kottarwa*), A *kotār* 'family, clan' (from Skt. *gotrá-*), TchB *cākkär* (du. *cakkarwi*), A *cākkär* 'wheel, cakra' (from Skt. *cākrá-*), TchB *mittär** (du. *mittarwi*) 'sun, mitra' (from Skt. *mitrá-*), TchB *yāntär* (pl. *yantarwa*), A *yāntär* 'mechanism, tie' (from Skt. *yantrá-*) may be explained in the following terms: after the loss of final vowels, they became formally identical to indigenous nouns with singular *-är* /-ər/, plural *-arwa* /-árwa/.

generalised the *r*-stem, e.g. *ṣñaura* 'sinews', *wmera* 'jewels', *tärkarwa* 'clouds', *amparwa* 'limbs', *pwāra* 'fires', *ysāra* 'blood (pl.)', etc. The reason why this development took place is fairly easy to envision: the formal link between the *r*- and the *n*-stem became increasingly opaque in the pre-history of Tocharian. It follows that some of these nouns have been detached from the *n*-form of the plural, becoming either *r*-stems (pl. *-ra*) or *ru*-stems (pl. *-rwa*). Thus, the *n*-plurals became easy to be abstracted and employed to mark the plural of other inherited formations. And these formations are in my view some of the nouns that synchronically attest the plural ending *-(a)una*.

Let us now look at the diachronic evolution of these nouns within the framework set up above, starting with the nouns with the plural *-una*.[96]

The reconstruction of the PIE word for 'tear' is notoriously difficult, and the derivation of TchB *akrūna* 'tears' is no exception.[97] The most comprehensive study on this word is undoubtedly Pinault (1997: 219f.). Before his investigation, the stem *akru°* was considered to be the outcome of PIE *-u-h₂* by Adams (1988: 32) and Ringe (1996: 30).[98] This explanation is contradicted by several examples of PIE neuter *u*-stems, which have a plural ending TchB *-wa* < PIE *-uh₂* (e.g. TchB *ārwa* 'trees' < PIE *d(o)ru-h₂*, TchB *ostūwa* ~ *ostwa* 'houses' < PIE *ueh₂stu-h₂*).[99] In Tocharian B, this noun is attested only in the plural; in Tocharian A, also the singular TchA *ākär* is attested, alongside the late plural form *ākrunt*. In order to demonstrate that *akru°* does not represent the outcome of PIE *h₂ekruh₂*, Pinault (1997: 224-5) notes that the singular TchA *ākär* does not mean 'tear' but it has the collective meaning of 'masse de larmes'. He therefore suggests that PTch

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[96] Nouns with dubious etymology will not be considered. This is the case of TchB *lāṃs*, A *wles* 'work' and TchB *yapoy*, A *ype* 'land'. The first noun is related to the homophonous verbal root TchB *lans-*, A *wles-* 'to work on, perform'. Adams (DTB: 594) takes the verb as a denominal formation. For an etymological suggestion, see Malzahn (2010: 834). The second noun has been the topic of controversial analyses, which have been summarised and commented by Hartmann (2013: 472-3). Although I am not convinced by the etymology of Hilmarsson (1988a), I believe he was right in linking the evolution of TchB *yapoy*, A *ype* with that of TchB *soy* 'son', A *se* (see further Malzahn 2006: 402 and Blažek & Schwartz 2017: 49). As far as the plural form is concerned, it is possible that PTch *yəpoy-wna* regularly evolved in TchB *ypauna*, after the loss of internal *-y-* (see the main text below).

[97] Cf. already Schulze (1927). In order to account for the initial *-d-* in some Indo-European forms (e.g. OIr. *dér*, Gk. δάκρυ, etc.), Kortlandt (1985) claims that the archaic PIE *h₂ekru-* was replaced by the compound *dŕk-h₂ekru-* 'eye-bitter' in some languages. Following this reconstruction, de Vaan (2008: 322) tentatively reconstruct the plural of the second form as *dŗk-h₂ekru-n-h₂*, continued in TchB *akrūna*, OLat. *dacruma*, Gk. δάκρυμα. However, the classical theory that Lat. *dacruma* has been borrowed from Gk. δάκρυμα is probably to be preferred (Ernout & Meillet 1932: 336).

[98] See recently Kim (2018: 98f.).

[99] In order to solve these problems, Ringe (1996: 31) claims that the final *-a* of *wa*-plurals has been analogically introduced after the alleged outcome of PIE *-eh₂* > PTch *-a*. However, as we will see in the following sections, PIE *-eh₂* yielded TchB *-o* even in word-final position. Furthermore, since all other *a*-plurals continue PIE *-h₂*, it is preferable to say that PIE *-uh₂* yielded PTch *-wa* > TchB *-wa*, TchA *-u*.

*akru- was the regular outcome of the collective PIE *$h_2e\acute{k}r\bar{o}\underset{\smile}{u}$ and that this form has been reinterpreted as the base of a new plural. This analysis has the advantage of not deriving PTch *akrəw- from the plural PIE *$h_2e\acute{k}ruh_2$, which one would rather expect to have yielded TchB **akruwa. Pinault further argues that the plural endings TchB -na and TchA -nt have appeared independently in the two Tocharian languages, i.e. when they had already split off from Proto-Tocharian. However, it is also possible that the ending *-na has already been added in a Proto-Tocharian stage: on the one hand, Tocharian B has maintained the plural form *akruna unchanged, while, on the other hand, Tocharian A has extended the apocopated form *ākrun to ākrunt (as for e.g. *wakmna > Pre-TchA *wākmän >> TchA wākmant 'separations').

Although this explanation is certainly possible, some Indo-European continuants of the word for 'tear' clearly point to the reconstruction of a heteroclitic *ur/n-stem (see the discussions in Hamp 1959 and 1972; Eichner apud Mayrhofer 1986: 162; Matasović 2004: 87; Kloekhorst 2008: 391, 2011: 268; Kroonen 2013: 504-5; Byrd 2015: 143).[100] If we reconstruct this heteroclitic paradigm for Pre-Tocharian, then the plural TchB akruna, A ākrunt may attest an important archaism: an original paradigm containing *akuna as a Pre-Tocharian replacement of the inherited collective formation was levelled as an r-stem and the ending -una was blended in.[101] On the other hand, the singular PIE *$h_2\acute{e}\acute{k}$-ur underwent metathesis *-ur > -ru, yielding Pre-PTch *akru > PTch *akrə > TchB ākär* /ákər/, A ākär 'tear' (cf. Table III.10).[102]

Table III.10. Evolution of the word for 'tear' in Tocharian

	PIE	PRE-PTCH		PRE-PTCH	PTCH	TCHB	TCHA
STRONG STEM	* $h_2\acute{e}\acute{k}ur$	> *akru	sg.	> *akru	> *akrə	> ākär*	ākär
WEAK STEM	* $h_2e\acute{k}u\acute{e}n$-	> *a$\acute{k}\underset{\smile}{u}\acute{e}n$-	pl.	>> *akuna	>> akrəwna	> akrūna	ākrun-t

The etymology of TchB ṣotri 'sign, mark' (pl. ṣotrūna, du. ṣotrūni) is unclear. The most recent attempt has been made by Adams (1990: 65), whose reconstruction has some difficulties, however. Indeed, he posits a vr̥ddhi formation in -r to PIE *$sued^h$- 'to custom',

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[100] The fact that some other Indo-European languages point to the reconstruction of a u-stem may equally be interpreted as caused by the metathesis of *-ur-> *-ru (as if, in Ved. áśru-, Gk. δάκρυ, OIr. dér, etc.).

[101] Judging from the Hittite data (with residues in Old Avestan, cf. aiiārā 'days'), heteroclitic nouns formed the nom.acc.pl. on the r-stem in PIE (see recently Nussbaum 2014: 300f.). However, several Indo-European languages have reshaped the nom.acc.pl. on the basis of the n-stem, cf. Ved. áhāni from áhar/n- 'day', OLat. femina from femur, feminis 'thigh', OAv. sāx˘ānī 'teachings' (de Vaan 2003: 138), Gk. ἤπατα from ἧπαρ 'liver' (cf. also Cantera 2009: 21 fn. 9 on Middle Persian). Further pieces of evidence that the same replacement took place in Tocharian are dealt with in §3.6.2.2.

[102] I think one cannot claim that PTch *akər is from *$h_2\acute{e}\acute{k}$-ur directly, because the sequence *-ku- (or *-kw-) is expected to evolve into PTch *-kʷ- (cf. PIE *$h_1\acute{e}\acute{k}\underset{\smile}{u}o$- 'horse' > PT *yək°æ > TchB yakwe; PIE *$h_2e\acute{k}ut\underset{.}{i}o$- > PTch *akʷətsæ > TchB akwatse 'sharp', Kim 1999).

which, in the history of Tocharian, would have become a *u*-stem and then recharacterised by a nasal suffix. The final protoform would have been *$s\underline{u}\bar{e}d^h$-r-u-h,en-*, which is extremely cryptic.

The reconstruction of TchB *ṣotri* is complicated by the derivative TchB *ṣotarye* 'signal, remarkable' (PK DAM 507.32 a5 and a8) and the variant plural *ṣotarnma* (AS3B a1). These forms may point to the reconstruction of a parallel singular *ṣotär**. If this singular form is original, then we can reconstruct a Proto-Tocharian paradigm with sg. **ṣotrə*, pl. **ṣotrəwna*, which morphologically matches sg. **akrə*, pl. **akrəwna*. In Pre-Proto-Tocharian, this noun would have been inflected as **ṣotru* in the singular and **ṣotuna* in the plural. Later, the *r*-stem would have been generalised, resulting in the blended plural *ṣotr-una*. On the other hand, the singular PTch **ṣotr-æy* > TchB *ṣotri*, A *ṣotre* would have been analogically created on the model of TchB *reki* (A *rake*) 'word', pl. *rekauna* (on which see below).

From a formal point of view, PTch **ṣotər* can be derived from PIE **seHd^h-* 'to achieve a goal', according to the following path: **seHd^h-ur* > **sēd^h-ru* > **ṣætru* > **ṣotru* (*u*-umlaut) > TchAB *ṣotr-* (on the semantic side, 'goal' → 'target' → 'mark').[103]

All other nouns to be discussed attest a plural formation in *-ewna / -auna*. Among the pluralia tantum, TchB *palauna* 'praise' and TchB *tarśauna*[104] 'deception' are action nouns derived from the subj. stem of TchB *pəla-* 'to praise' and the poorly attested verbal root TchB *tərk-* 'to wind', A *träk-* 'to lose (consciousness)' respectively.[105] Although their exact derivation is not clear,[106] the plural form *-auna* is of Proto-Tocharian origin, as demonstrated by the Tocharian A correspondents *tārśoṃ* 'deception' and TchA *paloṃ* 'praise' (cf. the plural *palonās* and the adjective *paloṃṣi*), synchronically singular.[107] In Tocharian A, the two terms have been reinterpreted as singular, due to the singulative meaning of the plural formation, which is still attested in Tocharian B.

In Tocharian B, a parallel case is *kerekauna* 'flood' (= Skt. *ogha-* 'torrent, flood'), which is also morphologically singular. According to Pinault (2001: 99) and Hilmarsson (1996: 132-3), TchB *kerekauna* derives from a thematisation of the PIE root **g^wo/erh₃-* 'to devour',

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[103] Cf. Rix (1985) and de Vaan (2008: 562-3). For yet another suggestion, see Malzahn (2006: 402f.).

[104] Adams (DTB: 303) reconstructs a singular *tārśi** on the basis of the dubious adjective TchB *tārśi(cce)* in B133 b5. A genitive singular may be attested in B255 a4 as *tārśi<ṃ>tse*. On the other hand, an obl.sg. *tārśai* seems to be attested in B496 a4, which makes the reconstruction of the singular paradigm difficult. As pointed out by Hannes A. Fellner apud CETOM, *tarśauna* is expected to have a singular *tārśi**, while the obl.sg. *tārśai* points to a nom.sg. *tarśiye**. Following Pinault (2015b: 213), I assume that the development of the singular paradigm is a Tocharian B innovation, and that in Proto-Tocharian this noun was a plurale tantum. See also Malzahn (2006: 400-1).

[105] Van Windekens (1979: 197) suggested that the ending *-auna* is to be segmented as *-au-na*, where *-au-* is the mark of past participles. He therefore assumed that the ending *-auna* in *tarśauna* and *palauna* was original. For criticism, see Hilmarsson (1988a: 35).

[106] See Malzahn (2006: 401-2) for recent proposals.

[107] For the mismatching root vocalism between TchB *palauna* and TchA *paloṃ*, see Malzahn (2006: 401-2).

enlarged with *-k-. In fact, in many Indo-European languages, this root appears in reduplicated nominal forms or in derivatives formed with a *k-suffix (cf. Skt. *gargara-* 'whirlpool', MP *galōg* 'throat', Lat. *gurges* 'whirlpool', Lat. *vorax*, *voracis*, Lat. *vorago*, etc.). Hilmarsson (1996: 133) reconstructs a formation *$g^w orh_3 o$-ko-* 'devouring' > PTch *$k\dot{c}r\dot{c}k\dot{c}$-, to which the collective ending TchB *-una* has been added. This formation regularly developed PTch *$k\dot{c}r\dot{c}k\dot{c}wna$ 'violent stream' > TchB *$kerekewna$ > *kerekauna*.

Another Tocharian B plurale tantum that can be ranged under this class has no Tocharian A correspondent. It is TchB *krentauna* 'virtue(s)', which evidently derives from the synchronically suppletive adjective TchB *kartse*, obl.sg.m. *krent* 'good'. Hilmarsson (1988a: 36f.) reconstructs a neuter plural *$kr\dot{c}nta$ enlarged with *-una*. As noticed above, however, the only problem with this reconstruction is that we find the spelling *krentewna* in archaic texts and this form cannot be the regular outcome of PTch *$kr\dot{c}ntawna$. However, the absence of any *krente-* among the case forms of *kartse* is striking. Furthermore, the derivatives of this adjective took their base from *kartse* (cf. the *ṣṣe*-adjective TchB *kärtseṣṣe* 'pertaining to the good'; the abstract *kärtsauñe* 'goodness, virtue, service'). It follows that TchB *krentauna* should be interpreted as an old derived form (perhaps from a derived noun PTch *$kr\dot{c}nt\dot{c}y$ 'goodness', see below).[108]

We thus remain with two nouns with the deviant singular ending TchB *-i*, i.e. TchB *reki* 'word' (TchA *rake*) and TchB *ṣewi* 'pretext' (without equivalent in Tocharian A).[109] In the first noun, the vocalism of the stem may derive from either PIE *-o-* or *-ē-*, but the palatalisation in *ṣewi* points unambiguously to PIE *-ē-*. On the other hand, the matching TchB *-i* : TchA *-e* must reflect PTch *-$\dot{c}y$*, the outcome of a PIE *-oi̯*-stem (Ringe 1996: 82-3). This reconstruction follows Klingenschmitt (1994: 400), who argued that TchB *reki*, A *rake* 'word' are from PIE *$r\bar{e}k$-oi̯* (cf. OCS *rěčь* < *$r\bar{e}ki$-) > PTch *$\acute{r}\dot{c}k\dot{c}y$*. According to Klingenschmitt, the plural ending should have been *-$\bar{o}i̯$*, but long diphthongs have usually lost the semivowel in absolute final position already in the proto-language (Gk. πειθώ < PIE *$b^h ei̯d^h$-$\bar{o}(i̯)$*, Ved. *sákhā* < PIE *$sek^w h_2$-$\bar{o}(i̯)$*). Be that as it may, we cannot find Tocharian continuants of either pl. *-$\bar{o}i̯$* or *-$\bar{o}$* and the origin of *-$e_u na$/-auna* must therefore be sought in other formations. I believe that the abstracted plural PTch *-una* has been added to the singular form of these nouns in order to recharacterise their plural. We can therefore outline the following development: *-$\dot{c}y$-una* (or *-$\dot{c}y$-wna*) > *-$\dot{c}wna$* (loss of *-y-*) > TchB *-$e_u na$* > *-auna*.[110]

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[108] Malzahn (2006: 400) reconstructs an original derivative in *-ur/n* for this noun, but she does not specify what was the basis on which TchB *krente_una* was constructed.

[109] TchB *ṣewi* is the only member of this class that seems to be feminine (cf. B109 a6 *yalñeṣṣai ṣewisa*). According to Adams (DTB: 725), a masculine agreement is found in B325 a5 *(alye)k ṣewisa*, but it is conjectural.

[110] See also Malzahn (2012c: 179). As far as Tocharian A is concerned, we can assume two different developments. If Tocharian A never had this ending, then the plural *-una* originated in a Pre-Tocharian B stage. On the contrary, if its spread took place in (Pre-)Proto-Tocharian, then Tocharian A has lost this ending and has further rebuilt the plural with the productive ending *-nt(u)*. The

3.6.1.3. TchB *śaumo* 'man, person'

So far, we have seen that the Proto-Tocharian ending *-na* has various sources. What is quite uniform, however, is the semantic meaning of these formations. Indeed, a relatively large group of Tocharian B pluralia tantum that attests this ending has a clear singulative meaning, mostly uncountable. I believe that this Proto-Tocharian value of *-na* may account for its attestation in the plural of TchB *śaumo* 'person, man'. The etymology of this word is clear: it is an original deverbal adjective in *-mo* from the ancestor of TchB *śaw-* 'to live' < PIE *g^wih_3-u-* (LIV²: 2015-6). The singular inflection (nom. *śaumo*, obl. *śaumoṃ*) is exactly the same as the adjective *klyomo* 'noble'. On the other hand, the deviant plural *śāmna* (with reduction of Pre-TchB *-aw-* before consonant clusters; cf. also TchB *śāmñe* 'human', Lane 1938: 26) runs counter to the expected form nom.pl. **śaumoñ* (cf. nom.pl. *klyomoñ*). Other substantivised adjectives in *-mo* also have a differentiated plural paradigm nom. *-oñ*, obl. *-oṃ* (e.g. TchB *wāsmo* 'friend', nom. pl. *wāsmoñ*, obl. pl. *wāsmoṃ*).

However, one should note that the plural TchB *śāmna* very rarely means 'men (i.e. male people)', since in the great majority of the attestations it must be translated with 'people, mankind' (e.g. B3 b3-4: *śaul attsaik totka śāmnaṃts ñke wrīyeṣṣe pältakwä atyaṃts a(k)entasa* "the life of humans is now only short (as) a drop of dew on the tips of grasses", cf. Peyrot 2016a: 204). Furthermore, as pointed out by Adams (DTB: 698), TchB *śaumo* is often used to designate humans as opposed to deities (e.g. the merism 'men and gods' in B30 b8 *ñakti śāmna tsälpāre piś toṃ cmelameṃ* "gods and men were freed from the five rebirths", cf. Zimmer 1976: 77). Thus, also in this noun the plural ending *-na* conveys a collective meaning. As for its origin, it seems that before the loss of the neuter as a category of target gender in the adjectival inflection, the historical outcome of the neuter plural *-mna* < *-mnh₂* started to serve as the plural of *śaumo* 'man', conveying the collective meaning of 'humankind'. This reanalysis may have occurred when the masculine and the neuter already merged morpho-phonologically in the singular, but the neuter plural was still differentiated from both the masculine and the feminine.

3.6.1.4. Summary

Before proceeding further with the analysis of the ending *-äṃ* in Tocharian A, I summarise the result of my investigation of the Tocharian B ending *-na.*

From a synchronic perspective, we have seen that the alternating nouns with the plural ending TchB *-na* are a closed class; from a diachronic perspective, this class is quite heterogeneous, since its members cannot derive from a common PIE nominal stem type.

A little subclass continues neuter formations in PIE *-men-*, where the ending *-na* derives from PIE *-nh₂* (e.g. TchB *śāmna* 'mankind', TchB *ñemna* 'names', etc.). Another noun that may have inherited this plural marker from Proto-Indo-European is TchB *ersna*

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second hypothesis seems preferable, because the spread of *-una* can be reconstructed for a Pre-Proto-Tocharian stage.

'form, appearance', which I have compared with Hitt. *ḫaršar, ḫaršn-* (Kloekhorst 2008: 314-5) as both reflecting the outcome of a heteroclitic paradigm.

Furthermore, we have seen that several nouns with *na*-plural had a clear singulative meaning in Proto-Tocharian. This value has been maintained in both Tocharian languages, but it is morphologically expressed in different ways. Indeed, Tocharian A, as opposed to Tocharian B, has reanalysed most of the formations in PTch **-na* as singulars (cf. plural TchB *palauna* 'praise' vs. singular TchA *paloṃ* 'id.'; plural TchB *tarśauna* 'deception' vs. singular TchA *tārśoṃ* 'id.; perhaps plural *ersna* 'form' vs. singular TchA *araṃ* 'id.', etc.). The same development can be observed also in a few Tocharian B nouns, as in *kerekauna* 'violent flood' and probably *śalna* 'quarrel'. This peculiar value of PTch **-na* is understandable from a comparative perspective. Indeed, as recently argued by Pronk (2015a), the nasal suffix had a "singulative" meaning in Proto-Indo-European, where it was initially limited to neuters. Proto-Tocharian has recharacterised this suffix with the original neuter collective **-h₂* > PTch **-a* and this new ending **-na* has become a special marker of plural nouns with singulative and collective meaning.

The origin of the plural ending TchB *-una* has been the main topic of my discussion. I have argued that this marker has been abstracted from the neuter plural of the PIE heteroclitic stems in **-uer/n*. In order to substantiate this claim, I have scrutinised the Tocharian lexicon with a view to finding continuants of these archaic stems. The results of my investigation are recounted below.

Tocharian inherited both the regular heteroclites in **-ur/n* and the derived collectives in **-uōr/n*. In the latter type, the allomorph **-u̯or* > PTch **-wær* became a common suffix to form verbal abstracts (Pinault 2011). In the former type, the PIE sequence **-ur* underwent metathesis, yielding **-ru* in all strong cases. These new **ru*-stems converge in the Tocharian Class I.2, where we find a conspicuous number of alternating nouns with sg. TchB *-är* /-ər/, A *-är* and pl. TchB *-arwa* /-ə́rwa/, A *-ru* (*-rwā*, *-runt*). Additional evidence in support of the metathesis **-ur* > **-ru* comes from isolated words, where the *o*-vocalism in the root has always been a matter of debate. This vowel can be now explained through affection by final *-u* (e.g. TchAB *ṣñor* 'sinew' vs. pl. TchB *ṣñaura*, TchA *kror* 'crescent of the moon', TchB *kror-iya* 'horn', TchB *plor-iya*, a wind instrument, etc.). From a diachronic perspective, the paradigmatic connection between metathesised **ru*-forms (strong stem) and non-metathesised **un*-forms (weak stem) became increasingly opaque in the prehistory of Tocharian and a new plural form based on the singular was created, thus Pre-PTch **-ru : *-una* >> PTch **-ru : *-rwa* > TchB *-r : -rwa*, A *-r : -ru*. Indeed, while the singular **-ər* could be from either Pre-PTch **-ru* or **-ur*, the plural **-rwa* proves that the singular was Pre-PTch **-ru*. The formal mismatch between *r-* and *n*-forms favoured the gradual abstraction of the plural ending *-una*, which started to form pluralia tantum and to recharacterise the plural form of various inherited stems. Among these stems, PTch **-una* has been attached to singular forms ending in PTch **-æ/-a* and **-æy*, forming a diphthongised plural **-ewna* that regularly developed *-eᵤna* in archaic Tocharian B, *-auna* in classical Tocharian B, and *-omna* in Late Tocharian B (Peyrot 2008: 52). The original distribution of the heteroclitic forms has been partially retained in relics, like *akrūna*

'tears' and *ṣotrūna* 'signs, markers', where the *r*-containing stem has been generalised and the plural **-una* blended in. As we will see, the same phenomenon also occurred in Tocharian A.

3.6.2. DISTRIBUTION AND EVOLUTION OF TCH A -*äṃ*

The plural ending TchA -*äṃ* is not productive, since it is confined to five substantives only.[111] As can be seen from the table below, the cognate nouns in Tocharian A and B belong to different inflectional classes.

Table III.11. Tocharian A nouns with plural -*äṃ* and their Tocharian B correspondents

TOCHARIAN A		CLASS	TOCHARIAN B		CLASS
SG.	PL.		SG.	PL.	
por 'fire'	*poräṃ*	II.1	*puwar* 'id.'	*pwāra*	I.1
ysār 'blood'	*ysāräṃ*	II.1	*yasar* 'id.'	*ysāra*	I.1
ytār 'road'	*ytāräṃ*	II.1	*ytārye* 'id'.	*ytariṃ* (obl.)	VI.1
wram 'thing'	*wramäṃ*	II.1	°*wreme* '?'	-	?
plāc 'word'	*plācäṃ*	II.1	*plāce* 'id.'	*plāci* (nom.)	V.2
				plätäṃ (obl.)	

Of the five Tocharian A nouns, three are of alternating gender (TchA *por*, TchA *ysār* and TchA *wram*), and two are of feminine gender (TchA *ytār* and TchA *plāc*).

The core issue is which of the two languages preserves the older state of affairs, and the present section aims to answer this question, analysing the synchronic distribution and the diachronic evolution of this ending in Tocharian. I intend to show that Tocharian A has generally preserved the original situation, while Tocharian B has mostly recharacterised the plural form of these nouns. If my analysis is correct, it would also confirm that this inflectional class is relevant to the reconstruction and the further development of an archaic Proto-Indo-European class of nouns: the **r/n*-heteroclites.

3.6.2.1. Etymology of the nouns

Three of the five Tocharian substantives that belong to Class II.1 can be traced back to PIE heteroclites.[112] They are: TchA *por*, B *puwar* 'fire', TchA *ysār*, B *yasar* 'blood', and TchA *ytār*, B *ytārye* 'road'. That these nouns reflect PIE **r/n*-stems was actually noted decades ago,

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[111] Part of this section appeared in: Del Tomba (2019).

[112] The connection of these Tocharian nouns with the PIE **r/n*-heteroclites had already been proposed in the past decades by leading scholars, like Petersen (1939: 75), Van Windekens (1944: 79ff.), and Hilmarsson (1984a) but their treatments are in many points different from mine. Furthermore, a systematic analysis of this Tocharian A class is still missing.

but the relevance of this fact for their plural formation has not, to my knowledge, been explicitly pointed out.

TchA *ytār*, B *ytārye* 'road'

Let us start our discussion with TchA *ytār*, B *ytārye* /y(ə)tárye/ 'road, street, path', both of feminine gender. These words must be compared with Lat. *iter*, gen. *itineris*, and the derivative YAv. *pairiϑna* 'the course of life' (Yt 8.54, Panaino 1990: 141).[113] The PIE form from which these nouns derive is usually reconstructed as *$h_1éitr̥$, *$h_1it-én-$ (from PIE *h_1ei- 'to go', LIV²: 232-3), although evidence for the full grade *$h_1éitr̥$ is meagre.

A closer look at the Tocharian words reveals some issues to be discussed. To begin with, the *a*-vocalism of the stem does not represent the expected outcome of PIE *$h_1éit-r$. This means that Tocharian continues a different formation, which can be traced back to the collective PIE *$h_1itōr$ (Hilmarsson 1986: 44; Pinault 2011: 163-4; DTB: 559; Kim 2019a: 145). Kortlandt (1988: 84-5) is the only one to stand against this derivation, since he prefers to postulate analogy after TchA *ysār*, B *yasar* 'blood'. Even though this solution is certainly not unthinkable, analogy is in my view unnecessary here, because we can easily reconstruct a morphologically plausible ancestor from which the Tocharian words may derive.[114]

The unexpected feminine gender in both Tocharian A and B, and the element *-ye* /-(ə)ye/ in Tocharian B are problematic. Hartmann (2013: 470-2 and 519-20) has recently collected and commented on the previous interpretations of these problems, and he has further posited PIE *$h_1itōr-ih_2$ or *$h_1itōr-ēn$ as the potential virtual ancestors of TchB *ytārye*. The first reconstruction follows Klingenschmitt (1994: 396 fn.140), who argued that both TchB *ytārye* and TchA *ytār* would be a recharacterised collective formation by means of the *vr̥kī́*-suffix. The second reconstruction follows Hilmarsson (1987: 48f.), who argued that a conflation of the *r*- and the *n*-stem took place in Proto-Tocharian, in such a way that from *$itōr$ a new form *$itōr-en-$ was created. The nominative singular of this preform should have been *$itōr-ēn$, which in turn became *$yətarəye$ > TchB *ytariye* ~ *ytārye*. Hartmann favours the first hypothesis, while Malzahn (2014b: 198) prefers the second.

I believe there are flaws in both theories. The first reconstruction is unsatisfactory from a phonological point of view, because PIE *$-ih_2$ should have evolved into TchB *-(i)ya*, A *-i*, thus TchB **$ytār(i)ya$, A **$ytāri$. The fact that PIE *$-h_2$ yielded PTch *-a > TchB *-a*, and

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[113] The oft-cited Hitt. †*itar* (alleged hapax legomenon in KUB 41.8 i 20, cf. Rieken 1999: 374-7; Kloekhorst 2008: 422) has recently been read by Miller (2008: 209 fn. 97) as DUMU-*tar* 'offspring'.

[114] One might object that, from the semantic point of view, the assumption of an original collective *$h_1itōr$ is difficult, as neither TchA *ytār* nor TchB *ytārye* denotes a multitude of streets and it cannot be proven that they did so at an earlier stage either. Nussbaum (2014a: 251) points out this problem and convincingly suggests that this (morphological) collective formation has an "instantial" value, i.e. "denotes [...] an individual instance of an action, event, or state" (p. 247), as in Gk. τέρμα 'crossing' < *$tér(h_2)-mn̥$ vs. τέρμων 'a boundary' < *$tér(h_2)-mō(n)$.

never PTch *-æ > TchB -e (as per Hartmann 2013: 470) is corroborated by unambiguous examples (see e.g. §3.7.3, §4.3.4.5).

The second solution presents no difficulties from a phonological point of view (cf. TchB *yriye* 'lamb' < PIE *werh₁-ēn, see Pinault 1997a: 185-7), but it has to cope with chronological and morphological problems. Indeed, it implies that an original *yətar, the regular outcome of PIE *h₁itór, first became *yətarəye (continued without modifications in TchB *ytārye*) and then turned to be *yətar > ytār in Tocharian A, according to the model of TchA *ysār* 'blood'. But this solution sounds very circular.

As the other heteroclites, this noun should be reconstructed as neuter in Proto-Indo-European. It follows that the feminine gender of TchA *ytār*, B *ytārye* must be secondary, because PIE neuter nouns are usually continued as alternating in Tocharian. In my opinion, in the Proto-Tocharian phase, this substantive was influenced by the ancestor of the productive feminine nouns TchB *kälymiye*, A *kälyme* 'direction, region' because of its meaning, so that PTch *yətar initially acquired feminine gender. Since the gender of TchA *kälyme* also fluctuates between alternating and feminine (Carling 2009: 176; Peyrot 2012: 212), one might assume a case of mutual influence. Subsequently, after the dissolution of Proto-Tocharian, it shifted inflectional class in Tocharian B, becoming a noun of the *kälymiye*-type.[115]

TchA *ysār*, B *yasar* 'blood'

The second noun to be discussed is TchA *ysār*, B *yasar* /yásar/ 'blood'. It has cognate forms in several Indo-European languages, including Hitt. *ēšḫar*, gen. *išḫanāš*, Skt. *ásṛ-k*, gen. *asnáḥ*, Gk. *ἔαρ* ~ *ἦαρ*[116], Latv. *asinis*, OLat. *as(s)yr* (Paul. Fest. 12. 19; cf. also *aser* in CGL 2.23,56 and the derivative OLat. *assarātum*, a kind of "bloody" drink, de Vaan 2008: 58), perhaps Lat. *sanguen* (Ennius, Ann. 108) ~ *sanguis*, Arm. *ariwn* etc. These forms may allow us to posit PIE *h₁ésh₂-r, *h₁sh₂-én-. The Tocharian words can easily be derived from this protoform (Kortlandt 2010: 146). Otherwise, they may also be the outcome of the collective *h₁ésh₂ōr (Hilmarsson 1986: 22; Pinault 2011: 163; DTB: 525).

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[115] A similar analysis has been proposed by Pinault (2015a). Malzahn (2014: 200) tentatively tries to analyse the irregular feminine gender of these nouns as an archaism, by comparing it with Homeric Gk. ἐέλδωρ 'desire, wish', of unexpected feminine gender (see also Leukart 1987: 355). In parallel, Nussbaum (2014: 253) also claims that there is no reason not to interpret the feminine gender of this noun as original, because the other continuants in *-ōr inherited by Tocharian are alternating. However, this statement can also be read the other way around: since the other continuants of *-ōr are alternating in Tocharian, *h₁itór should originally have been neuter too and thus expected to evolve as an alternating.

[116] Gk. ἔαρ is unattested before the Hellenistic period. In the glosses by the fifth-century CE grammarian Hesychius we find both variants: ἦαρ · αἶμα. ψυχή (Hsch. sub ἦ-8) and ἔαρ · αἶμα. Κύπριοι (Hsch. sub ε-31).

TchA *por*, TchB *puwar* 'fire'

The last noun that can be traced back to a PIE heteroclitic stem is TchA *por*, TchB *puwar* 'fire'. Cognates of these words are found in most Indo-European languages. Among these, Hitt. *paḫḫur* (gen. sg. *paḫḫuenaš*) continued the proterodynamic inflection almost intact and thus provides substantial evidence for reconstructing the heteroclitic paradigm as PIE **péh₂-ur*, **ph₂-uén-* (Kloekhorst 2013: 111). Other cognates include: Gk. πῦρ < **pūr*, gen. πῠρός, Arm. *howr* < **pūr* (Olsen 1999: 94), Umbr. *pir* < **pūr* (cf. acc. sg. *sim* 'pig' < **suH-m*), abl. *pure* < **pŭr-ed*, Goth. *fōn*, gen. *funins*, OHG *fuir*, ON *fúr* < **pūr* (Simms 2009), Cz. *pyř* 'burning ash' (Machek 1957: 502). There is no doubt that both TchA *por* and TchB *puwar* 'fire' are somehow linked to these formations. However, the exact apophonic grade and morphological formation from which they descend are notoriously problematic, since the phonological comparison between TchA *-o-* and TchB /-əwa-/ is awkward and complicates the Proto-Tocharian reconstruction.

Winter (1965: 192f.) was the first to claim that Tocharian A and B point to different preforms: TchA *por* would continue PIE **péh₂-ur*, while TchB *puwar* would be from PIE **puh₂-r*. Other scholars propose that the word for 'fire' retained both regular and collective stems in Proto-Tocharian: Tocharian A would continue the former, Tocharian B the latter. This reconstruction is followed by Van Windekens (1976: 383) and Adams (DTB: 421-2), and it has been recently advocated by Kim (2019a: 145). However, I believe that multiplying the number of protoforms that cannot belong to the same morphological paradigm is questionable and quite unlikely. Indeed, if Tocharian inherited both the regular and the collective formation of this noun, it is highly probable that it had already generalised one of the two paradigms before the breakup of Proto-Tocharian.

In an attempt to trace back TchA *por*, and TchB *puwar* to a single preform, Hilmarsson (1985: 42-3, 1989: 135) argued that a collective **ph₂uōr* may have evolved in Proto-Tocharian as **pəwar* and then TchB *puwar* and TchA *por*. A similar reconstruction has been supported by Ringe (1996: 17-8) and Hackstein (2017: 1314). In my view, there are two problems with this theory. The first is the outcome of the laryngeal. I indeed expect PTch **pawar* > TchB ***pāwar* /páwar/ as the regular outcome of PIE **ph₂uōr*. Ringe points to this problem and hesitantly argues that in a sequence **CHuV*, the laryngeal evolved into **ə* rather than **a*. This "sound law" is difficult to evaluate, since it is not falsifiable. There is indeed no other clear parallel that can prove this evolution.[117] However, PTch **p(ə)war* can be the expected outcome of the zero grade **puh₂r*, and it is therefore much more

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[117] The only parallel that Ringe (1996: 18-9) was able to find is TchB *skiyo*, which he traced back to PIE **sḱh₂ieh₂-*. He imputed the lack of palatalisation in this word to an irregular development of the first laryngeal that yielded as "some nonfront segment" in Proto-Tocharian (p.19). However, the evolution of this term is even more complex than the one seen in the word for 'fire'. As a consequence, I think it cannot be used as a solid argument in favour of the sound law **CHuV/*CHiV* > **CəwV/*CəyV*. See further §3.7.2.1.

economical to start with this protoform. Still, a more serious problem is the alleged contraction PTch *-əwa- > TchA -o-, because it lacks again any immediate parallel.[118]

In the following, I base myself on direct and indirect evidence in order to determine whether this sound law can be established or not. As we will see, however, the overall picture is still fuzzy. Let us look first at other potential outcomes of PIE *-uh₂-. I have found the following clear examples: (1) PIE *suh₂d-ro- 'sweet' (Gk. ἡδύς, Skt. svādú-) > PTch *sware > TchA swār, B swāre; (2) PIE *uh₂g- (LIV²: 664-5) > PTch *wak-a- > TchB waka- 'to split, flourish', A wākā- 'to burst'. Other examples of the correspondence TchB -wa- : A -wā- are: (1) TchA swāñceṃ, TchB swāñco (obl.) 'ray of light' (to be linked in some way with the n-stem of PIE *séh₂-ul / -uén- 'sun') and (2) the dual TchA pärwāṃ, TchB pärwāne, from PIE *h₃bʰruH- 'eyebrow' (Gk. ὀφρῦς, Skt. bhrú-). These examples evidently go against the proposed sound law, but they are still not conclusive. Indeed, TchB pūwar may inform us about the original accentuation of this word, which should have been stressed on the shwa in Proto-Tocharian, thus */pə́war/.

Some other indirect evidence may be adduced. Hilmarsson (1989: 135, 1996: 187) saw a similar development in the oblique singular of the Tocharian A word for 'dog', which is TchA koṃ (attested once in A360 a9), B kweṃ. Both of these oblique forms are considered as the outcome of PTch *kʷæn < PIE *ḱuon-m̥. But this example is probably too uncertain and quite isolated, also because Proto-Tocharian labiovelars are expected to lose the labial element before PTch *æ < PIE *o (e.g. *kʷólo- '± turning' > PTch *kælæ > TchB kele 'navel'; PIE *ǵʰuono- 'sound' > PTch *kænæ > TchB kene, A kaṃ 'melody'). It is therefore probable that the labiovelar was reintroduced analogically after the nominative at some stage. Another parallel might be TchA pl.ipv. plos for the expected *pälwäs, as if from *pələwasa, perhaps showing the same alleged contraction as TchA por < *pəwar (Peyrot 2012: 210, 2013: 171 fn. 178). However, an analogical development after the singular TchA plo* cannot be excluded, and it is even likely in view of the variant plamäs for the regular pl.ipv. pälmäs and the lack of root-final -ā in the Tocharian A pl.ipv. (Peyrot 2013: 171 fn.178). A last indirect parallel of the sound law PTch *-əwa- > TchA -o- may be envisioned in the evolution PTch *-əyæ > TchA -e-, which has quite a number of comparable items (see the previous section on TchA ytār, B ytāriye).

All things considered, I believe that this sound law cannot be established with confidence, since other parallels (if any) still need to be found. However, in light of the data presented, we might say that the disyllabic sequence PTch *ə́wa- became TchA -o- if the first syllable was accented and the entire sequence came to occur in a closed syllable.

If one is not inclined to accept this sound law, two last possibilities can be ventured. As hinted in §3.6.1.2, I expect that in the regular paradigm of PIE *péh₂-ur/n 'fire' the strong cases underwent metathesis of *-ur > *-ru in Tocharian. The weak stem regularly evolved into *ph₂un-V́- > *puh₂n-V́-. If Tocharian inherited this paradigm, it should have yielded

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[118] Hilmarsson (1989: 135) hesitantly proposed that PTch *pəwar became *powar in Pre-Tocharian A, via umlaut. However, there is no evidence that u-umlaut operated in Tocharian A after the Proto-Tocharian period. See Burlak & Itkin (2003).

PTch *pår(u), *pwan-, which can account for both Tocharian forms. Accordingly, Tocharian A would have continued the strong stem PTch *påru > *pår > TchA por, while Tocharian B would have continued the weak stem PTch *pwan- > *pəwan- (ə-epenthesis) >> Pre-TchB *pəwar > TchB puwar (see also Schindler 1967: 242f.). Otherwise, if Tocharian inherited a double zero grade form *puh₂r (from an older *ph₂ur), the reverse development would have occurred. Indeed, Tocharian B would have continued the strong stem PIE *puh₂r > PTch *p(ə)war > TchB puwar, while Tocharian A would have continued *ph₂uen- > PTch *paẃən- >> Pre-TchA pawər > TchA por. As a matter of fact, this case would not be isolated in the Tocharian nominal lexicon. Indeed, there are other – admittedly rare – cases where the two Tocharian languages have continued outcomes of different apophonic grades of one single paradigm. A clear example in this sense is TchA tsar and B ṣar 'hand', which point to different inflected forms of PIE *ǵʰesr- 'hand' (for explanations, see Schindler 1967: 244f.; Pinault 2006: 80f.; Kim 2009a: 112 fn.4; DTB: 711).[119]

One might think that the paradigm was levelled as a r-stem already in Proto-Tocharian. However, compelling evidence that Proto-Tocharian still preserved n-forms comes from Tocharian A, as I will show below.

TchA wram (B wreme) 'thing, object'

The two last substantives that belong to Class II.1 are TchA wram (B °wreme) 'thing, object, matter' and TchA plāc, B plāce 'word'. They cannot go back to heteroclitic stems.

From a synchronic point of view, TchA wram is well attested, while TchB wreme occurred twice in B197 as a second member of the compound TchB käkse-wreme '?' (= Skt. viṣaya-?). This fragment is part of a Sanskrit Tocharian bilingual dealing with matters of Abhidharma. The Sanskrit parts are quotes from the Abhidharmāvatāra-prakaraṇa (Kudara 1974; Catt 2016). The translation of käkse° is always left out and the meaning of °wreme is inferred from the comparison with TchA wram. Indeed, the usual Tocharian B noun for 'thing, object' is TchB wäntare, which is not etymologically related to TchA wram. Furthermore, since the gender of TchB wreme is unknown and it is attested only in the nominative singular, we are not able to determine to which class it belongs. Indeed, TchB -e is the nom.sg. of several Tocharian B inflectional classes, among which the most productive is Class V.1 (continuing old thematic stems). For this reason, the authors of the Elementarbuch sorted this noun into this class. From a diachronic perspective, one can think that final -e in käkse-wreme '?' reflects a secondary thematisation in compounds (cf. the Greek type στόμα 'mouth' vs. °στόμος).

Following Van Windekens (1976: 580-1), TchA wram can be the exact cognate of Gk. ῥῆμα, -ατος 'statement, word', since both Greek and Tocharian A point to an action noun

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[119] Some other cases of formally different inflected forms due to either regular or syntagmatic phonological developments are mostly found in Tocharian B: TchB sg. āyo, pl. āsta 'bone' (cf. TchA āy, pl. āyäntu); TchB or 'wood', pl. ārwa (due to different kinds of umlaut); TchB ṣñor 'sinew', pl. ṣñaura.

PIE *$u̯réh_1$-$mn̥$. This etymology is supported by the plural form TchA *wramäṃ* (cf. gen.pl. *wramnāśśi* in e.g. A4a3).[120]

TchA *plāc*, B *plāce* 'word'

The last noun to be discussed is TchA *plāc*, B *plāce* 'word'. Among the five nouns with plural TchA *-äṃ*, it is the only case where Tocharian B has the more archaic inflection, while Tocharian A has replaced the plural form. In the following, I will therefore refer more to Tocharian B than Tocharian A.

An etymological connection with the verbal root TchB *pəla-*, A *pälā-* 'to praise' is obvious. This verb is the outcome of either PIE *(s)pelH- 'to proclaim, speak solemnly' (cf. Gk. ἀπειλέω 'to threat', Pinault 2008: 345; LIV²: 576), or *b^helh_1- 'to yell, roar' (cf. OHG *bellan* 'to bark', Klingenschmitt 1994: 127; DTB: 403; LIV²: 74), although the meaning of the Tocharian verb speaks in favour of the first derivation. It is usually assumed that our noun is an old *ti*-derivatives of this verbal root.[121]

From an inflectional point of view, TchB *plāce* belongs to an unproductive class (Class V.2, cf. TEB §183), whose few members display nom. sg. *-e* after a palatalised consonant, truncation of this vowel in the oblique singular, and non-palatalised consonant in the oblique plural. The bulk of this class can be traced back to PIE *i*-stems with original hysterodynamic inflection (Pinault 2013: 345f.). This analysis is confirmed by TchB *maśce* 'fist', which is to be equated with Proto-Indo-Iranian *musti- 'fist' (cf. Skt. *muṣṭí-*, Av. *mušti-*), although the Tocharian word continues a nom.sg. PIE *-$tē(i̯)$, instead of the expected *-ti-s in Indo-Iranian (Pinault 2013: 346f.; DTB: 476; Malzahn 2014a: 259 fn. 2).

All thing considered, the evolution of TchB *place* is as follows: nom. sg. PIE *plH-$tēi̯$ > PTch *-cæ > TchB *-ce*, acc.sg. PIE *-ti-$m̥$ > PTch *-cə > TchB *-c*, nom.pl. PIE *-tei̯-es > PTch *-cəyə > TchB *-ci*, acc.pl. PIE *-ti-ns > *-cəns >> PTch *-təns > TchB *-täṃ*.[122]

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[120] I see no reason to reconstruct either Pinault's *$u̯r̥h_1$-o-mo- (2008: 512) or Adams' *$u̯rē$-mēn- (DTB: 672). Although these preforms have the advantage of deriving both Tocharian A and B words from a common ancestor, the former does not take into account the unproductive plural ending TchA *-äṃ* (showing, say, the "morphologia difficilior"), while the latter requires an unfounded lengthened grade in both the root and the suffix. On the basis of TchB *kälymiye*, A *kälyme* < PIE *$ḱli$-mēn, we would expect that an alleged *wrē-mēn evolved into TchB **wremiye, A **wrame.

[121] Klingenschmitt (1994: 401-2) reconstructed a hysterodynamic abstract derivative in *-tu (see recently Hackstein 2017: 1316). However, as correctly pointed out by Hartmann (2013: 486f. with references), this derivation is implausible, because evidence for reconstructing hysterodynamic *u*-stems is meagre (Neri 2003: 110f.) and the derivatives in PIE *-tu are usually either masculine or neuter, and never feminine (Adams 1988: 125f.). Furthermore, we have no other clear continuants of hysterodynamic *u*-stems in Tocharian (as Klingenschmitt himself acknowledged).

[122] The reconstructed paradigm of the PIE hysterodynamic *i*-stem follows Beekes (1973). Malzahn & Fellner (2015: 72 fn. 36) argue that the nom. sg. *-e* and the lack of palatalisation in the oblique plural are unexpected and that they are due to analogical development after the ubiquitous TchB *e*-stems, on the one hand, and to the contrast between palatalised nom.pl. and non-palatalised

Now that we have clarified what type of PIE stems are continued in the Tocharian A Class II.1, we can move forward with the origin of the plural ending TchA -*äṃ*.

3.6.2.2. Origin of the plural ending TchA -*äṃ*

There are two opposing ways to explain the plural forms of the nouns discussed above: (1) either Tocharian B has preserved the original situation and Tocharian A has introduced the morpheme -(*ä*)*ṃ* < PTch *-*na* from other stems, or (2) Tocharian A has preserved the original situation and in Tocharian B the nasal plural *-*na* has been lost.

At first sight, both hypotheses seem plausible. The former implies that Tocharian A inherited plural forms identical to those of Tocharian B. When final vowels were deleted in Pre-Tocharian A, nominative and oblique would have become homophonous in both the singular and the plural. In order to reintroduce a distinction between singular and plural, the plural morpheme -*äṃ* would have been attached at a later stage (e.g. pl. PTch *-*yəsara* > Pre-TchA *-*ysār* >> TchA *ysāräṃ*). This hypothesis also has to cope with some problems, however. As stated in the opening section, the fact that the marker TchA -*äṃ* is the least productive among the plural endings of Tocharian A must be seriously considered if its origin is to be traced. As a consequence, analogical developments can hardly be involved: basically, there is no immediate source where the plural *-*äṃ* could have been abstracted and then generalised.[123]

I therefore believe that the latter scenario is the correct one, since it lends itself to a more elegant solution: the nasal element in TchA -*äṃ* must be interpreted as an archaism not only in TchA *wram* 'thing, object', which goes back to an old *-*men*-stem, but also in those words that continue heteroclitic *-*r*/*n*-stems, where the plural -*äṃ* historically coincides with the original *n*-form. It follows that Tocharian A, as opposed to Tocharian B, has continued the heteroclitic inflection, by refunctionalising the *n*-form of the oblique cases in the plural. This is not an isolated trend of development, since it closely resembles similar cases in Latin and Iranian.

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obl.pl. in e.g. *lāñc* : *lāntäṃ* (from TchB *walo* 'king'), *ḷyśi* : *ḷykäṃ* (from TchB *ḷyak* 'thief'), on the other hand. I agree with them that the replacement of the non-palatalised obl.pl. TchB *plātäṃ* for the expected TchB *-*plācäṃ* is secondary. In Proto-Tocharian, the ending *-*əns* instead of *-'*əns* was ubiquitous, and an analogical change after the class of TchB *ḷyak* (obl. pl. *ḷykäṃ*) is probable. On the other hand, I do not see any diachronic problem with the nom.sg. -*e* of TchB *plāce*. Analogy after the TchB *e*-stems is in my view unnecessary.

[123] One might think that TchA -*äṃ* has been introduced from the neuter nasal stems. However, the only noun that diachronically goes back to a *-*men*-stem and synchronically shows this ending is namely *wram* 'thing, object', because other continuants of the PIE *-*men*-stems have replaced their original plural forms, like TchA *ñom* 'name', pl. *ñomäntu* (cf. TchB *ñem*, pl. *ñemna* < PTch *-*ñæmna*). This evidence implies that *-*äṃ* was not a convenient plural ending in Pre-Tocharian A. There is therefore no reason why words like TchA *por* 'fire', *ytār* 'road', and *ysār* 'blood' should have selected this ending, and not other much more productive plural markers.

In the history of Latin, the old heteroclites are normalised in two ways (Ernout 1914: 67-8; Leumann 1977: 359-60; Weiss 2009: 240f.). On the one hand, some nouns have analogically levelled the *r*-stem in all cases (e.g. Lat. *ūber, -eris* 'udder; abundant', cf. Skt. *ū́dhar/n-* 'udder'), although in Old Latin a few of them were still heteroclitic. Compare, for instance, Lat. *femur*, gen. *femoris* 'thigh' (e.g. *in femore*, Cicero, Verr. Or. IV. 43, 93) with OLat. *femur*, gen. *feminis* 'id.' (e.g. *femina* in Plautus, Poen. 3.1, 68). On the other hand, nouns like *iter*, gen. *itineris* 'street, way, journey' or *iecur*, gen. *iocineris* 'liver' show spread of the *r*-stem from the strong cases to the *n*-stem of the weak cases. It follows that in the pre-history of Latin two paradigms of the word for 'way, street' can be virtually reconstructed: older **iter / *itinis* and newer **iter / *iteris* (Leumann 1977: 103). Latin speakers mixed up the two paradigms, forming a new inflection with a stem **itin-er-*, from a pre-existing **itin-*, in all weak cases and in the plural. Only the nominative and the accusative singular still attest the original distribution of the allomorphs.

Let us now consider some examples from Iranian. In Khotanese, spellings with double *-rr-* are the result of consonant clusters beginning with the vibrant (e.g. Khot. *ttarra-* 'grass' < **tr̥na-*, cf. Skt. *tŕ̥ṇa-*; Khot. *kārra-* 'deaf' < **karna-*, cf. YAv. *karəna-* 'ear [daēvic]; deaf', Ved. *kárṇa-* 'ear', Emmerick 1969: 69). For this reason, OKhot. *gyagarra-* 'liver' is traced back to **i̯akr̥na-* by Emmerick (1980: 168). In parallel, the numeral OKhot. *byūrru* '10.000, myriad' can be the outcome of **baiwarnam* (Emmerick 1980: 168 and 1993: 292; cf. Bailey 1979: 309). Although no clear Indo-European cognates of this word have been identified so far, OKhot. *byūrru* has some cognates in several Iranian languages, from both the Western (e.g. Pahl. *bēwar*, Parth. *bywr*) and the Eastern side (e.g. Sogd. *βrywr* 'myriad', Iron *birœ*, Digor *be(w)arœ*, cf. Cheung 2002: 65), including YAv. *baēuuarə/bāeuuan-*, which points to the reconstruction of a heteroclitic **r/n*-stem for Proto-Iranian (KEWA: II, 2514).

It is reasonable to assume that the same mixture of the two stems has affected the words for 'fire', 'blood', and 'road' in the Pre-Tocharian A stage. In Proto-Tocharian, these words must have continued the heteroclitic inflection, with *r*-stem in the singular and *n*-stem in the plural. Then, when Tocharian B and A split off from Proto-Tocharian, the former generalised the *r*-stem, and the latter refunctionalised the two stems, adding the reanalysed nom.obl.pl. PTch **-na* < PIE **-nh₂* to the *r*-stem (cf. Table III.12).[124]

Table III.12. Heteroclitic inflection from Proto-Indo-European to Tocharian A

	PIE	PRE-PTCH		PTCH	PRE-TCHA	TCHA
STRONG STEM	**it-ór*	> **yət-ar*	sg.	> **yətar*	> **yätār*	> *ytār*
WEAK STEM	**it-n-*	> **yət-ən-*	pl.	> **yətə-na*	>> **yätār-än(ā)*	> *ytāräṃ*

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[124] Other survivals of PIE **r/n*-stems may have formed their plural as nouns of Class II.1 in Tocharian A, like TchA *ṣñor* 'sinew' (TchB *ṣñor*) < **snéh₁-ur/n-* (cf. YAv. *snāvarə*, Ved. *snā́van-*). Unfortunately, the plural of this noun is only attested in TchB *ṣñaura*, but one might reconstruct *ṣñoräṃ** for Tocharian A.

As Hock (1991: 189f.) has pointed out, in analogical changes old and innovative forms have to coexist as variants for some time before the effective realisation of the analogy. Occasionally they are affected by blending (sometimes also called contamination). The phenomenon of blending is usually treated as a sporadic lexical change by which a new word is created through the combination of two already existing lexemes. In some cases, however, blending also affects the morphological paradigm of words, especially when they develop competing stems. This is exactly what has happened to the three Tocharian A nouns. In Proto-Tocharian, the two stems were therefore maintained for some time, particularly because they had different grammatical functions: the *r*-stem was used to express the singular, and the *n*-stem the plural. But the entire paradigm was analogically levelled, and the *r*-stem became the basis on which the *n*-containing endings were added. Through this development, the functional correspondence between singular and plural has been formally maintained, and PTch *-na* has become a new plural marker.[125]

On the other hand, the competitive *r*- and *n*-forms have developed differently in Tocharian B: the entire paradigm of these nouns was levelled in favour of the *r*-stem, while the *n*-form disappeared. This is a common trend of development that is also found in some other Indo-European languages. Examples include: Lat. *ūber*, gen. *ūberis* 'udder' (cf. Skt. *ū́dhar*, gen. *ū́dhnas*, Gk. οὖθαρ, gen. -ατος), MP *ǰagar* 'liver' (cf. Skt. *yákr̥-t*, gen. *yaknás*, YAv. *yakarə*), OHG *wazzar* 'water', OE *wæter* 'id.' vs. Goth. *wato* (*n*-stem) 'water', ON *vatn* 'id.' (cf. Hitt. *u̯ātar*, gen. *u̯itenaš*, Gk. ὕδωρ, gen. ὕδα-τ-ος), OHG *fuir* 'fire; heart', OD *fuir* 'fire', OE *fȳr* 'id.' vs. Goth. *fon* 'fire', ON *funi* 'flame' (cf. Hitt. *paḫḫur*, gen. *paḫḫuenaš*), and see further the doublet Goth. *sauil* 'sun' vs. Goth. *sunno* 'id.' (cf. OAv. *huuarə̌*, gen. *xᵛə̄n̥g*).

A similar analysis, *mutatis mutandis*, also accounts for TchA *wram* 'thing, object', whose plural *wramäṃ* may go back to *u̯réh₁-mn-h₂* > *wrēmnă* > PTch *wŕæmna*. On the other hand, I was not able to find any clear explanation for the plural *plācäṃ* 'words' (cf. *plācänyo* 'because of words' in e.g. A75 b6). Indeed, among the words discussed above, this is the only case where Tocharian B attests remnants of the original inflection (cf. nom.pl. TchB *plāci* < PTch *pəlacəyə* < PIE *(s)plH-tei̯-es*). A tentative analysis suggests that TchA *plāc* acquired the plural ending from TchA *wram*. The reason this analogical development took place lies in the meaning of these nouns. Indeed, TchA *wram* must originally have meant 'speech, word', as the etymology of the term seems to indicate. For a certain period, TchA *wram* and TchA *plāc* were consequently almost synonyms, and this has favoured the transfer of the ending -*äṃ* to the paradigm of *plāc*. Only at a later time would TchA *wram* have developed the meaning of 'object'.

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[125] One may wonder whether this phenomenon can be regarded as a process of exaptation, a term introduced in linguistics by Lass (1990), according to which linguistic relics can be refunctionalised by being adapted according to existing regular templates.

3.6.2.3. Summary

Summing up the result of our findings, we have seen that, with the exception of TchA *plāc* 'word', the Tocharian A nouns with plural ending *-äṃ* can be traced back to PIE **r/n*-stems (TchA *ytār* 'road', *ysār* 'blood', *por* 'fire') and to PIE **men*-stems (TchA *wram* 'thing'). My final aim was to demonstrate that the plural ending TchA *-äṃ* is an important archaism that in a way continued the Proto-Indo-European state of affairs. We have seen that the reconstruction of heteroclitic nouns requires strict comparisons between the older stages of the Indo-European languages, because in more recent times the same languages generalised one of the two stems. In Tocharian B we find precisely this development: the formal contention between *r*- and *n*-stems was resolved with the victory of the former over the latter. The final result of this process caused the collapse of the *n*-stem. On the other hand, we have seen that Tocharian A preserved the older state of affairs, since it has maintained both the *r*-form of the singular and the *n*-form of the plural. The final outcome of this development is a blended plural with the *r*-form as the stem and the *n*-form as the ending. This inflectional class therefore constitutes an important section of the Tocharian lexicon that offers a small but significant contribution to the diachronic evolution of Indo-European nominal morphology.

3.6.3. THE DEVELOPMENT OF TCH B *-na*, TCH A *-äṃ* IN THE INFLECTION OF THE NOUN: A RETROSPECTIVE

Let us summarise the results of our survey. From a synchronic point of view, it has become clear that TchB *-na* and TchA *-äṃ* are differently distributed. The Tocharian B ending is characteristic of two groups of substantives: (1) a closed class of alternating nouns, where TchB *-na* has to be interpreted as an inherited marker (both of Proto-Indo-European and Proto-Tocharian origin); (2) a flourishing class of feminine nouns, where the origin of *-na* is debated. On the other hand, TchA *-äṃ* is confined to archaisms, which mostly inherited this plural marker from the proto-language.

Nonetheless, the internal comparison between Tocharian A and B allows us to reconstruct **-na* as a quite common marker of alternating nouns in Proto-Tocharian. Krause & Thomas (TEB) divided Class II into two parallel subclasses: Class II.1 has a plural ending TchB *-na*, while Class II.2 has a plural ending TchB *-nma*. This bipartition is based on Tocharian B, since the metathesis of the cluster *-mn-* to *-nm-* entailed the formation of the second subclass. The Tocharian A correspondent nouns have different plural forms. On the one hand, a few inherited heteroclitic **r/n*-stems and **men*-stems continued to be member of Class II. On the other hand, most nouns with the plural PTch **-na* have been transferred to other classes with plural ending TchA *-nt /-ntu* (Class III.1 and Class III.2). These Tocharian A nouns corresponds to Tocharian B nouns of both Class II.1 and II.2, as the examples below show: TchB *sārm*, pl. *sārmna* : TchA *sārm*, pl. *sārmäntu*; TchB *ñem*, pl. *ñemna* : TchA *ñom*, pl. *ñomäntu*; TchB *nāki*, pl. *nakanma* : TchA *nākäm*, pl. *nākmant*; TchB *wāki*, pl. *wakanma* : TchA *wākäṃ*, pl. *wākmant*, etc. Sometimes we can still see the old

plural form *-mnā* in isolated Tocharian A derived forms, as in TchA *arkämnāṣi*, derived adjective from * *arkänmā* (cf. TchB *erkenma*) or the gen.pl. TchA *wramnāśśi* from *wramäṃ*.

Another trend of development of Tocharian A is that Proto-Tocharian formations with plural ending **-ewna* have been reinterpreted as singular, as in TchA *paloṃ* 'praise' (cf. TchB pl. *palauna* 'id.') and TchA *tārśoṃ* 'deception' (cf. TchB pl. *tarśauna*).

We should now turn to the feminine paradigm of the *śana* and *aśiya*-type. As already underlined, Tocharian A and B diverge in the formation of the plural paradigm of these classes, since Tocharian B attests *-ona* and *-ʸana* (nom. = obl.), while Tocharian A has differentiated markers in the nominative and in the oblique, i.e. TchA *-añ*| *-as* and *-āñ*| *-ās*. In this case, the comparison between the two languages invalidates a direct Proto-Tocharian reconstruction. An important question is therefore which of the two languages maintained the older situation. There are two opposite ways to explain this mismatch: (1) Tocharian B maintained the older state of affairs, and thus Proto-Tocharian had **-na* as the plural marker of these classes; (2) Tocharian A maintained the older state of affairs, and thus we have to reconstruct the situation of Proto-Tocharian as different from that of Tocharian B. Both hypotheses have advantages and disadvantages. The former implies that Tocharian B maintained the Proto-Tocharian state of affairs unaltered, but also leads us to ask why Tocharian A has lost the expected outcome of **-na* and, more generally, how this ending came out in Proto-Tocharian. The second hypothesis suggests that Proto-Tocharian had formally differentiated nominative and oblique plural forms. This should have been also the situation of Proto-Indo-European, and thus Tocharian A would have developed it. But why would Tocharian B lose such a differentiated paradigm?

This problem cannot be addressed without considering evidence form adjectival and pronominal inflections. Indeed, in the continuant of the PIE thematic type we find a clear contrast between adjectives with f.pl. TchB *-ona*, A *-aṃ* and adjectives with f.pl. TchB *-ana*, TchA *-āñ*| *-ās*. Again, for the former type the comparison between Tocharian B and A is straightforward, while it is not for the latter, which in turn strongly resembles what we find in the noun inflection. Given the fact that these plural markers are characteristic of both nouns and adjectives, I will investigate the origin and the development of the feminine plural ending *-na* once having also considered data from the adjectival inflection (§4.3.3.1).

3.7. ON THE ORIGIN AND THE EVOLUTION OF INFLECTIONAL TYPES FROM CLASS VI

So far, I have investigated the evolution of the PIE feminine and neuter gender in a restricted group of nouns, which mostly coincides with TEB Class II in Tocharian B. These nouns have been consistently compared with their Tocharian A equivalents, in order to clarify the diachronic evolution of their endings and forms.

Following the same method, I will in the following paragraphs deal with the historical evolution of selected inflectional types, which synchronically belong to TEB Class VI (pl. *-ñ*). The aim is to understand how (1) the non-ablauting **eh₂*-type (i.e. the **ā*-inflection), (2) the hysterodynamic **(e)h₂*-type (i.e. the **ā/ă*-inflection), and (3) the

ih₂-type (of both the *devī́*-type and *vr̥kī́*-type) evolved in the Tocharian inflection of the noun.

The section is divided into three central parts. I will first investigate nouns with nom.sg. *-o*, obl.sg. *-a*, which can be grouped under two different types on the basis of their plural inflection: (1) masculine or feminine nouns with differentiated nominative and oblique in the plural (nom.pl. TchAB *-ñ*, obl.pl. TchB *-m̥*, A *-s*) and (2) alternating nouns with undifferentiated nominative and oblique in the plural (§3.7.1). Afterwards, I will deal with two closely related inflectional classes, the so-called *okso*-type and *arṣāklo*-type, which both end in nom. *-o*, obl. *-ai* in the paradigm of the singular (§3.7.2). In the third part, I will investigate the origin of the *wertsiya*-type, whose members have a palatalised stem *-ʸa-* throughout the inflection of both the singular and the plural.

3.7.1. THE *kantwo*-TYPE

Tocharian B nouns with nom.sg. *-o*, obl.sg. *-a* and their Tocharian A correspondents

In this section, I will investigate the diachronic evolution of a small class of nouns, the so-called *kantwo*-type. Some preliminary remarks on the identification of each substantive will be made (§3.7.1.1). These will entail a revision of the list of the members usually proposed. Thereafter, I will discuss the etymology of the nouns identified and examine the evolution of their inflected forms. I will also discuss the gender of difficult nouns in order to have a solid basis for their diachronic investigation (§3.7.1.2).

One of the most recent and detailed works about the nouns of the *kantwo*-type (nom.sg. *-o*, obl.sg. *-a*) is Malzahn (2011). Within the specialised literature on Tocharian nominal morphology, this inflectional class has over the years become one of the most debated types, since the great majority of its members are supposed to go back to the PIE type in *-eh₂* > *-ā*. Nevertheless, an overall discussion on the problems presented by this class was missing until Malzahn's article, which is, as far as I know, the only work that has considered these nouns all at once. Most notably, she analysed both the synchronic attestations and the diachronic interpretations of each substantive of the *kantwo*-type. Given the wide number of data collected and the relevant examinations suggested, in this paragraph I will frequently refer to her article, though differing interpretations will be proposed.

From a synchronic point of view, only a few Tocharian B substantives pertain to this inflectional class. Their main characteristic is that they have a nominative singular *-o* and an oblique singular *-a*. The plural formation is, on the contrary, not uniform. The great majority of them falls into TEB Class VI.3 (nom. pl. *-āñ*, obl. pl. *-am̥*, see below), while, for some others, no plural forms are so far attested.

Furthermore, two alternating substantives, TchB *luwo* 'animal' and TchB *āyo* 'bone', can be included in a class somehow parallel to the *kantwo*-type: these words have nom.sg. *-o*, obl.sg. *-a*, but also attest the deviant plurals TchB *lwāsa* and TchB *āsta* (with no formal difference between nominative and oblique). Other two nouns with *sa*-plural are TchB *l̥yyāsa* 'limbs' (TchA *l̥yiyā ~ l̥yā*) and TchB *piltāsa* 'petals' (TchA *pāltwā*), but the

reconstruction of the singular paradigm of these words is either unclear or debated (see the main text below).

In Tocharian A, the few matching nouns show unmarked nominative and oblique singular forms. Judging by the comparison with Tocharian B and some rare Tocharian A plural and derived forms (cf. instr.pl. *käntwās-yo* 'with tongues', *käntwāṣi* 'related to tongue', *kātsaṣi** 'belonging to the belly' < **kātsāṣi*), they belong to Class VI.3 as well. The Tocharian A equivalents of TchB *luwo* and TchB *āyo* are TchA *lu* and TchA *āy*. As in Tocharian B, also in Tocharian A these nouns show no difference between nominative and oblique plural (TchA *lwā* and TchA *āyäntu*).

3.7.1.1. The members of the *kantwo*-type

Krause and Thomas (TEB §§145, 159, 194) list six members: (1) TchB *kantwo*, A *käntu* 'tongue, language', obl.sg. *kantwa*; (2) TchB *kāswo* 'skin disease', obl.sg. *kāswa*; (3) TchB *kātso*, A *kāts* 'belly, abdomen', obl.sg. *kātsa*; (4) TchB *tāno*[126] 'grain, seed', obl.sg. *tāna*; (5) TchB *tsāro* 'monastery', obl.sg. *tsāra*; (6) TchB *luwo*, A *lu* 'animal', obl.sg. *luwa*.[127] In addition, at least three other nouns belong to this class: (1) TchB *āyo*, A *āy* 'bone', obl.sg. *āya*; (2) TchB *suwo* 'pig', obl.sg. *suwa*; (3) TchB *maiyya* ~ *maiyyo* 'power, strength', obl.sg. *maiyya*.

Somewhat problematic and not listed by Malzahn is TchB *kāwo* 'desire', which, according to Adams (DTB: 164), has an obl.sg. *kāwa*. While the nominative singular is clearly attested (e.g. in NS39 b1 and in B588 b4), to my knowledge, no oblique singular form has been identified yet. However, the allomorph of the oblique singular stem can be easily inferred from secondary cases and derivatives. Indeed, the causal *kawāñ* 'out of desire' – to be phonetically analysed as /kawáñə/[128] – allows us to reconstruct the obl.sg. as *kāwa* (e.g. in AS7L b3 *läks ra misāṃts kawāñ nakṣäṃ l(āre śaul)* "like the fish loses [its] dear life out of desire for meat"). A confirmation of this analysis can be found in the derivative *kawātse* 'desiderous' (B516 b4)[129], regularly based on the oblique singular form. In addition,

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[126] Schmidt (apud EWAIA: I, 787) mentions a hypothetical TchA *tāṃ* 'grain' without giving, however, the attestation (see also Malzahn 2011: 84 fn.3). As pointed out by Peyrot (2018), this *tāṃ* may be an overlooked form of the homophonous obl.sg.f. of the demonstrative of remote deixis TchA *saṃ* 'that'.

[127] As correctly pointed out by Malzahn (2011: 83 fn.1), an obl.sg. †*māskwa* of TchB *māskwo* 'hindrance' is never attested. The forms of the secondary cases (e.g. abl. sg. *māswkameṃ* ~ *māsk*ᵤ*meṃ*) and the derivative *maskwatstsai* speak in favour of an obl. sg. *māskwä* /máskwə/ (not †*māskwa* /máskwa/). Furthermore, this noun has a plural in -*nta* (cf. the derived adjective *maskwantaññeṣṣe* in B291 b6), which would be strange for a noun of the *kantwo*-type (Peyrot 2011: 151).

[128] Cf. the similar accent position in *läkleñ* /ləkléñə/ 'because of the suffering'. See Pinault (2008: 400 and 465).

[129] This fragment is admittedly difficult to translate: the form *aukatsāmat* (in b4 *weṣṣäṃ aukatsāmat ra māka no kawātse*, cf. Sieg & Siegling 1953: 319-20) is hard to analyse and the word

one cannot claim that *kāwo* is a member of the *okso*-type (nom.sg. *-o*, obl.sg. *-ai*, stem *-ai-*), because a stem ****kawai-* should then be expected. Accordingly, TchB *kāwo* must be assigned to the *kantwo*-type.

Another noun that has not been considered by Malzahn is the hapax legomenon nom.pl. TchB *käryāñ* 'viscera (?)' attested in IT1 a4: *ṣemeṃts käryāñ pruknānträ* "The *käryāñ* of some are bounding" (cf. Broomhead 1962: I, 143-6; Wilkens & Peyrot 2017: 694).[130] This plural form allows us to reconstruct the nom.sg. as *karyo** /kə́ryo/. The Tocharian A equivalent is TchA *kri* 'will, desire', nom.pl. *käryāñ* (Carling 2009: 217, cf. also TchA *käryāñ präṅki-ñi* '[my] desires are restrained' in A115 a4). However, a translation 'wills, desires' for *käryāñ* does not make sense in the text and one should rather translate it with 'viscera, guts', as Wilkens & Peyrot (2017: 693 and fn.29) pointed out. On the basis of its etymology (cf. Gk. κραδίη 'heart'), Hilmarsson (1996: 100), followed by Adams (DTB: 175), proposes a meaning 'heart', despite the fact that the regular word for 'heart', TchB *arañce*, occurs in the same text (line a1). Therefore, it is tempting to analyse the original contrast between TchB *karyo** and TchB *arañce* in light of similar pairs of synonyms referring to the notion of the heart as "the source of emotion", on the one hand, and "the material organ", on the other hand, found in some other Indo-European languages (cf. Bolelli 1948 for an analysis of ἦτορ, κῆρ, and κραδίη in Homer).

Problematic is also the alleged obl.sg. TchB *ekita ~ ekīta* 'help' (DTB: 80). No evidence of the nominative singular has been found so far, as it is only attested in the expression *ekita yam-* 'to help' (Meunier 2013: 173-74), and in some derived forms (cf. *ekītatstse* 'helpful, helper' and *ekītatsñe* 'assistance'). From a derivational point of view, one might claim that it contains the suffix *-ito*, which also occurs in TchB *laukīto* 'stranger' (to be linked with *lauke* 'far'). If so, it might be assumed that the nominative singular of obl.sg. *ekīta* was *ekīto** (cf. nom.sg. *laukīto*) and that the oblique singular of nom.sg. *laukīto* was *laukīta** (cf. obl.sg. (?) *ekīta*).[131] However, since TchB *ekita* is never attested as a free word, we are still not sure to which part of speech it must be assigned (cf. Meunier 2013: 173, who considers it an adverb). Since its origin and derivation are unclear too, I think it is better not to include it into the discussion.[132]

On the other hand, another noun may share the same formation of TchB *laukīto*. It has been read by Sieg & Siegling (1953: 333) as TchB *tekīta*, a hapax legomenon attested in B530

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division is uncertain. Sieg & Siegling (1953: 320 fn. 8) proposed *aukat tsāmat* "you will grow and increase" (cf. Adams DTB: 136), but both Malzahn (2010: 547) and Peyrot (2013: 843 fn. 1029) rejected this division. For discussions, see Hackstein (1995: 338) and Malzahn (2010: 547 and 985).

[130] The Tocharian verb *pruknānträ* corresponds to OUy. *sekriyü sučtyu* (0794) "springen" in the parallel passage. See Wilkens & Peyrot (2017: 685, 688, 692).

[131] For a slightly different idea, see Peyrot (2012: 194). Cf. also Pinault (2015: 176 fn. 39).

[132] Van Windekens (1976: 176) claims that a noun TchB *ek** is inferable after *ekaññi* 'possession', and that this hypothetical word would be a loanword from TchA *ek* 'fodder'. However, this hypothesis is highly improbable, both for the postulation of a loanword from Tocharian A and for the meaning. Furthermore, TchB *ekaññi* is related to TchA *akäṃtsune* 'possession', as Carling (2009: 2) and Adams (DTB: 79) demonstrated.

b4 /// *d vā · tekīta taśi wat ya* ///. This fragment is a bilingual list of Sanskrit terms translated into Tocharian. Unfortunately, the Sanskrit counterpart of TchB *tekīta* is missing, because the document is torn on both the left and right sides. As for other Tocharian words, also in this case the meaning of the noun could be envisaged on the basis of its etymology. Adams (DTB: 322) connected it to the action noun *teki* 'disease' and thus translated *tekīta* as 'sufferer, sick person', an oblique singular. Although this analysis is certainly possible from a linguistic point of view, I believe that the line should be read differently. As is well known, a common difficulty of Tocharian palaeography is how the signs ‹na› and ‹ta› are written and differentiated. Sieg & Siegling read three *t*-signs in the line, but it seems to me that the shape of the second differs from that of the other two.

We therefore must decide if the sequence should be read *tekīna taśi* or *nekīta naśi*. Before looking morphologically at these forms, I checked how ‹ta› and ‹na› are written in the manuscript to which B530 belongs (Couvreur 1968), and it seems to me that ‹ta› is usually written like our second akṣara, while ‹na› is written like the first (i.e. ‹ne›) and the third. I will therefore work with *nekīta naśi*. Although both these forms are not attested elsewhere, they are not difficult to interpret. The second is the expected 3sg.opt. of the verbal root TchB *nək-* 'to destroy, lose' (Malzahn 2010: 324-26 and 681). On the other hand, TchB *nekīto** can be a derivative in -(*i*)*to* of an unattested action noun *neki** 'destruction', regularly built on the subjunctive stem of *nək-*. If this analysis is correct, we must interpret the entire phrase as a figura etymologica with the meaning of "(s)he would destroy the destroyer", or the like.[133] Therefore, both TchB *laukīto*, A *lokit* and TchB *nekīto** will be treated as members of the *kantwo*-type below.

According to Adams (DTB: 141), TchB *auso**, a verbal noun built on the past participle of *wəs-* 'to wear, don', seems to fit into this inflectional class. The supposed attested forms are: oblique *ausa* in THT1859 a1 and THT1105 b3, and locative *ausane* in AS4A a2. As regards the locative (listed also by Hartmann 2013: 326), TchB †*ausane* (AS4A a2) must now be corrected in *aisene* 'in the cauldron' (Pinault 2015a: 197). The other putative attestations of TchB *ausa* are more difficult to analyse with regard to both the meaning and the form. In particular, the reading of line a1 in the archaic manuscript THT1859 is debated, to such an extent that I cannot consider it a certain attestation of the noun.[134] Much more certain is the reading *ausa* in THT1105 b3 *makā-yäkne ausa aṣitaṃ pār pitsamonta wasātai* "you wore in many kinds, clothes (?), fur (?), plumage (?), scales (?)"

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[133] A last possibility implies that the ‹ne› of the first akṣara is a scribal mistake and thus that the phrase {*t*}*ekīta naśi* would mean '(s)he would destroy the infector' (cf. also *tekanma nakṣeñca* 'destroying all diseases' in Y2 a2).

[134] Adams (DTB: 141) reads the line as *ausa snai parnnā yāntaite* and translates the sentence as 'they exchanged clothes voluntarily'. This interpretation is rejected by Ogihara (2015: 106f.), who claims that the correct reading is *ausa snai pernne ayāttaite*. According to him, *ayātaitte* 'untamed, untameable' is the nominative singular of a *te*-adjective that must be linked to some other attested forms (e.g. obl.sg.m. *ayātaicce*, obl.pl.m. *ayātaiccem*), while *ausa* would be a nominative singular of uncertain meaning.

(edited by Schmidt 2018: 51 and 98; cf. Tamai 2014: 369-370).[135] All nouns attested (i.e. *ausa, aṣitaṃ, pār, pitsamonta*) are oblique forms, but their exact meaning is uncertain, considering that they are hapax legomena. Apparently, these terms denote different kinds of human and animal hides, in representation of the preceding existences of the character in the tale. So as to the inflectional class of this noun, we must conclude that, in the present state of documentation, it cannot be considered as a member of the *kantwo*-type, because we lack unquestionable nominative forms and we are not even sure whether to interpret *ausa* as a singular or a plural (if a plural, it should be sorted into the *mīsa*-type, on which see §3.8.2.2).[136]

In the list made by Malzahn (2011: 88), she includes two other substantives, TchB *śaro** 'adult man, elder' and TchB *ñāsso* 'part, portion'.

As regards the first noun, she agrees with Peters (2004: 267 fn.5) in reconstructing a nom.sg. *śaro**, obl.sg. *śara** for the attested plural paradigm nom.pl. *śrāy* < *śráñə (?), obl.pl. *śrānäṃ*.[137] This interpretation is in my opinion unconvincing. The oblique plural of this noun clearly shows a nasal as part of the stem that does not fit well with the other nouns of the *kantwo*-type: indeed, while the latter attests a plural *-āñ| -aṃ*, the reconstructed plural of *śrāy* may have been **-añə| -anən*. If, as Peters argues, this word went back to an extended *nt-stem, i.e. PIE *ǵerh₂-nt-s, we should still see the outcome of *-t-* somewhere in the paradigm, as in the case of TchB *walo* 'king', nom.pl. *lāñc* < *ulH-nt-es, obl.pl. *lāntäṃ* < *ulH-nt-ṇs (Lubotsky 1994). As a consequence, Pinault's diachronic interpretation (2008: 484f.) is preferable, as he postulates a Proto-Tocharian stem **śəran-* /śərán-/, with fixed accent on the last syllable. Furthermore, given the fact that no singular forms are attested and that the plural nom. *śrāy*, obl. *śrānäṃ* has no immediate parallels in Tocharian, I believe that the singular of this word cannot be set up with any certainty.[138]

The identification of *ñāsso* 'part, portion' is also doubtful. According to Malzahn (2007), this word is attested in two documents: once in B547a2 as a nom.sg. TchB *ñasso* (with *-a-* /ə/?), and twice in THT1168 b4 as an obl. sg. TchB *ñāssa*. The first fragment represents a bilingual word-by-word translation of a doctrinal Sanskrit text, in which the expression TchB *s(e) ñasso* would be the counterpart of Skt. *yoṃśaś*, a sandhi-variant of *yaḥ aṃśaḥ* (Sieg & Siegling 1953: 342 fn.13). She therefore interprets *ñasso* (a mistake for *ñāsso*) as a nominative singular with the meaning of 'part, portion' (Malzahn 2007: 241). She further links this word with TchB *ñāssa*, which is attested twice in THT1168 b4, and

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[135] In the document, *wasātai* is to be corrected in *wäs(s)ātai* (cf. lines a3 and a4 of the same text).

[136] Adams (DTB: 114), followed by Hartmann (2013: 326), interprets this noun as masculine (or alternating) on the basis of the ghost attestation in AS4A a2 (see the main text above).

[137] On **-áñə# > *-áyə#*, see Carling (2003: 93), Pinault (2008: 485), Peyrot (2012: 185) and §3.7.2.5. Adams (DTB: 705) suggests that TchB *śrāy* is from nom.pl. *ǵerh₂-ụes, an ablaut variant of Gk. γραῦς 'old woman'. However, Gk. γραῦς is rather from **ǵreh₂-i̯u-* (GEW: I, 324; Beekes 2010: 285), and Adams' acc.pl. *ǵerh₂-ụṇs cannot be the ancestor of the Tocharian obl.pl. *śrānäṃ*.

[138] Peters (2004: 267) wants to put also TchB *pānto* in the *kantwo*-type. On this noun and the problematic nom.pl. *pantañ*, see Malzahn (2011: 95 fn.31).

analyses this form as an oblique singular of *ñāsso*. The fragment is part of an avadāna that tells the Buddhist story of the merchant Anāthapiṇḍika, who donates the Buddha a beautiful garden. Line b4 reads ///*kete pelkiñ ñāssa uppāl ñaskeṃ po ñāssa sanai tinār sā* […][139] ///, and Malzahn's translation is "… on his behalf, they demand blue lotus as a share (*ñāssa*). The entire share (*ñāssa*) of one coin (obl.) this one (nom.sg.fem.) …".

In defence of her analysis, she points out that THT1168 is more carefully written than B547,[140] and therefore argues that *ñasso* is a mistaken form to be corrected in *ñāsso*. Although a wrongly spelled vowel is possible in itself, I cannot agree with her in saying that TchB *ñāssa* is the oblique singular of *ñāsso*, since *ñāssa* is better analysed as the perlative singular of TchB *ñyās* 'desire', which displays a clear development of *ñy- > ñ-* in initial position, otherwise attested in some other Classical Tocharian B documents (Peyrot 2008: 63-64; Ogihara 2012). Contrary to Malzahn (2007: 242 fn.22), who claims that it would be unlikely to consider *ñāssa* as a perlative of *ñyās* because this document does not show "any eastern TB language features", Ogihara (2012: 179) points out that the scribe who copied this and other fragments belonging to the same avadāna probably was a Classical-Late Tocharian B speaker. Furthermore, the frequent figura etymologica *ñyāssa ñäsk-* 'to seek with desire' attested also in THT1168 b4 confirms this analysis. As a consequence, the entire line should be translated as follows: "… To whom they seek with desire a blue lotus; this one (nom.sg.f.) [seeks] with desire one gold coin …" (cf. Peyrot 2008: 63-4 fn.61). I therefore agree with Ogihara and Peyrot in saying that there is no link between *ñasso* in B547 a2 and *ñāssa* in THT1168 b4: TchB *ñasso* (not †*ñāsso*) is to be considered a hapax legomenon.

Ogihara (2009: 426-7, 2011: 135 fn.33) also discovered the new inflected form *mālo* (in THT2382.1 b2), which appears to be the nom.sg. of the already attested obl.sg. *māla*, a kind of inebriating drink (= Skt. *maireya-* in THT1103 b1; cf. also the derivative *mālatsai* '± drunkenness, related to *mālo*' in B241 a3 [arch.]). This noun is now demonstrated to belong to the *kantwo*-type (DTB: 482; cf. already Klaus T. Schmidt apud Tremblay 2005: 436).

Finally, a last noun that can be inserted into the *kantwo*-type is TchB *patso* 'pollen, stigma'.[141] It is a difficult word. From a synchronic point of view, it is attested several times in the nom.pl. *ptsāñ* (spelled once as *pätsāñä* in W38 a5): it occurs twice in the Berlin collection (B497 b8 (*ptsā*)*ñä*; B498 a8 *ptsā*(*ñ*)), twice in the Paris collection (AS3B a3 and b5 *ptsāñ*), and eleven times in the Weber series (W4 b1; W7 b4; W19 b2 and b5; W20 a5; W21 b4; W28 a6; W29 b1; W32 a5; W38 a5; W39 a3). Quite remarkably, TchB *ptsāñ* is only found in nominal phrases with the adjective *kurkamäṣṣi* 'pertaining to saffron (pl.)'. The rest of the paradigm is more difficult to be established, because all other inflected forms are found in broken contexts. The nominative singular may be attested in the archaic

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[139] For an interpretation of the final portion of the line, see Ogihara (2012: 178ff.) and Peyrot (2008: 63-4 fn.61).

[140] Some other misspellings are in fact attested in this document, e.g. monophthongisation of *au* into *o*, cf. *onästrä* for *aunasträ* in B547 a1. See Peyrot (2008: 53ff.).

[141] See also Hartmann (2013: 70-1).

document IT881 b2 (/// *pätso śkwäśko ma*///, "...pollen, barberry...///, cf. Michaël Peyrot apud CETOM s.v.), while the oblique singular can be probably found in IT244 a3 (///*kektseṃtsa* || *patsa tā*///, "...on the body || pollen this..."). [142] We find an apparent oblique plural *patsaṃ* /pátsan/ in IT305 at line a4 (*malkwer patsaṃ uppāläṣṣana witsakaṃmpa kärkoṣ śātrempa mā swālle* "milk is not to be drunk with pollens, lotus roots, and sprouted grain", cf. Thomas 1964: 72 fn.2), and a5 (*patsaṃ śemesteṃ kwrarāk arkwañai śeśuwermeṃ mā malkwer yokalle* "After having eaten pollens ..., the milk is not to be drunk"). Filliozat (1948: 62), followed by Adams (DTB: 388), claims that the translation of *patsaṃ* as 'pollens' does not seem appropriate, but I do not see any problem with this meaning (cf. Thomas 1964: 217; Sieg 1955: 70; Broomhead 1962: I,20). Adams (DTB: 388) further objects that "the difficulty of associating *patsaṃ* [obl.pl.] with *ptsāñ* [nom.pl.] in a single paradigm argues against the equation [of *patsaṃ* as an inflected form of *patso*]".

In other words, the claim by Adams is that we would expect *ptsāṃ** /p(ə)tsán/ as the obl.pl. of a noun of the *kantwo*-type. However, there are parallels contradicting this claim. Indeed, nouns of the *kantwo*-type seem to have a contrast between nom.pl. *-āñ* /-áñ(ə)/ and obl.pl. *-aṃ* /-an/ in Tocharian B, showing that the observed accent is regular. A noun that pairs well with *patso* is TchB *tāno* 'seed', which has nom.pl. *tanāñ* /tanáñ(ə)/ (cf. *tanāñ^ä* IT305 b3; *tanāñ^ä* W11 a6), obl.pl. *tānaṃ* /tánan/ (PK DA M 5067.37 and .36 a36, a40).

Malzahn's list (2011: 88) can now be amended to contain the following nouns: [143]

Table III.13. Nouns with nom.sg. *-a*, obl.sg. *-o*

TCHB NOUN	GENDER	OBL. SG.	NOM. PL.	OBL. PL.	STEM	TCHA
kantwo 'tongue'	m.	*kantwa*	*käntwāñ**	*kantwaṃ**	*käntwā-*	*käntu*
kātso 'belly, stomach'	f.	*kātsa*	*katsāñ*	–	*katsā-*	*kāts*
tāno 'seed of grain'	f.	*tāna*	*tanāñ*	*tānaṃ*	*tanā-*	–
patso 'pollen, stigma'	m.	*patsa*	*p(ä)tsāñ*	*patsaṃ*	–	–
mālo '±spirit, alcohol'	f.	*māla*	–	–	*malā-*	–
karyo* '±viscera'	?	*karya**	*käryāñ*	–	–	*kri* (m.)

[142] On the basis of the prevalent occurrence of TchB *patso* in agreement with the nom.pl.m. *kurkamäṣṣi* (Hartmann 2013: 215), I do not believe that the obl.sg.f. *tā* agrees with *patsa* in IT244 a3, also because the word order clearly suggests that the demonstrative refers to a following word. Moreover, *tā*/// occurs at the beginning of a broken line, where it may stand for obl.sg. *tā*(*na*) 'seed of grain', among many other words.

[143] The list could of course become larger if for additional nouns the relevant forms are identified in the texts. Other nouns that are not listed, but which could probably be listed here too, will be discussed in the following paragraphs.

kāwo 'desire'	f.	*kāwa*	–	–	*kawā-*	–
kāswo 'skin disease'	f.	*kāswa**	–	–	*kaswā-*	–
tsāro 'monastery'	f.	*tsāra*	–	–	–	–
laukīto 'stranger'	?	*laukīta**	–	–	–	*lokit*
*nekīto** '±destroyer'	?	*nekīta*	–	–	–	–
suwo 'pig'	?	*suwa*	–	–	*s(u)wā-*	–
luwo 'animal'	alt.	*luwa*	*lwāsa*	*lwāsa*	*lwā-*	*lu*
āyo 'bone'	alt.	*āya*	*āsta*	*āsta*	*ayā-; astā-*	*āy*
maiyya ~ -yo 'strength'	f.	*maiyya*	*maiyyana~* *maiyyañ* (?)	*maiyyana ~* *maiyyaṃ*	*maiyyā-*	–

3.7.1.2. Analysis of the nouns

This section is the central part of my discussion on the *kantwo*-type, in which I deal with the diachronic evolution of all nouns identified in the previous paragraph. Because of its etymology, TchB *kantwo*, A *käntu* 'tongue' is the obvious choice to start our discussion. Then, I will deal with four nouns that are supposed to go back to the PIE type in *-eh₂ > *-ā* (TchB *tāno* 'seed of grain'; TchB *karyo** '±viscera'; TchB *kātso*, A *kāts* 'belly, stomach'; TchB *kāswo* 'skin disease') and I will discuss the origin of *mālo* 'spirit, alcohol'. The outcome of *-eh₂* in word-final and internal position will be outlined and examined. Furthermore, I will discuss whether these nouns can go back to the same PIE inflectional type or if some phonological and/or analogical changes have mixed up different inherited stem types. Afterwards, I will deal with the remaining substantives. First, I will analyse the abstract nouns *kāwo* 'desire' and *tsāro* 'monastery, nunnery', and investigate the origin of the suffix TchB *-to*, A *-t* in TchB *laukīto*, A *lokit* 'stranger', TchB *nekīto** '±destroyer', and other agent nouns. Then, I will analyse the faunal terms TchB *suwo* 'pig' and TchB *luwo*, A *lu* 'animal'. The last two nouns, TchB *āyo*, A *āy* 'bone' and TchB *maiyya* 'strength' will be treated separately.

TchB *kantwo*, A *käntu* 'tongue'

The Tocharian word for 'tongue' has attracted the interest of many scholars, since it is the only member of this class for which cognates are found in most of the Indo-European languages. Before proceeding to the discussion of its historical development, however, the gender of the noun in both Tocharian languages must be clarified.

In the singular, TchB *kantwo* is found in agreement with a masculine modifier (e.g. B118 b7 ^C*ārkwi* (m.sg.) *mäsketär-ne* ^T*käṇtwo* "his tongue becomes white"). On the other hand, the plural paradigm is not attested directly; however, the oblique plural *kantwaṇ** /kə́ntwan/ can be easily inferred on the basis of the perlative plural *colormeṣṣeṃ käntwāṃtsa* "with *colormeṣṣe* tongues" (AS17H a3). Although the meaning of *colormeṣṣeṃ* is unknown, it can be formally analysed as the obl.pl.m. of an adjective TchB *colormeṣṣe** in argreement with the perl.pl. *käntwāṃtsa* (cf. also *colormetse* NS11 b1; *colormecce* IT823 a2; *colormeṃtsa* B355 b2). This plural concord is not listed either in Hartmann (2013: 327) or in Adams (DTB: 147). They report the gender of the noun as masculine or alternating, but I cannot agree with this analysis. Even if we did not have the plural agreement in AS17H, TchB *kantwo* could not have been interpreted as an alternating noun in any case, because it should then have had identical nominative and oblique plural forms (§2.4.1).

The gender of the Tocharian A equivalent, TchA *käntu*, is more difficult to establish. Hilmarsson (1996: 79) claims that we have only three agreement sets: TchA *käntu* agrees twice with a masculine modifier (A300 a8; YQ II.10 a8), and only once with a feminine modifier (A57 a2), both in the singular. These contradictory environments led scholars to lemmatise the noun as both masculine and feminine (e.g. Carling 2009: 163; TEB §194). The cases in the singular are given below (Hartmann 2013: 309-10):

A300 a8
napeṃsinäṃ   *käntuyo*
human:OBL.SG.M   tongue:INSTR.SG.M
"with human tongue".

YQ II.10 a8
wärts   *knuṃts*   *käntu*
broad:NOM.SG.M   supple:NOM.SG.M   tongue:NOM.SG.M
"the tongue is broad and supple".

A57 a2
opal-yokāṃ   *käntuyo*
lotus-coloured:OBL.SG.(F ?)   tongue:INSTR.SG.(F ?)
"with a lotus-coloured tongue" (cf. SSS §58 p.33)

The only plural attestation is the following:

A356 b2
triśkās   *käntwāsyo*
??   tongue:PERL.PL

Let us start with the plural form. Hartmann (2013: 310) hesitantly gives the instrumental plural *käntwāsyo* as agreeing with TchA *triśkās*, which he interprets as a hapax legomenon

of uncertain meaning and formation. However, another inflected form seems to be attested in a broken passage of A375 a2 as *triśkaṃ*, which, if an adjective, could formally be a feminine plural in agreement with *pātruk* /// 'skull(s)' (likewise SSS §174).[144] Otherwise, TchA *triśk** can be a noun with plural TchA *-āñ*| *-ās* and loc.sg. *triśkaṃ*.[145] In view of these inconclusive data, I agree with Sieg, Siegling & Schulze (SSS §58, p.33) in saying that TchA *triśkās* is too uncertain ("dunkel") to be used for identifying the gender of *käntu*.

Back to the singular paradigm, we see that, in the first two passages, TchA *käntu* and *käntuyo* agree with the targets *wärts* 'broad', *knuṃts* 'supple', and *napeṃsināṃ* 'human', three adjectives inflected as masculine. Based on these nominal agreements, we should therefore consider TchA *käntu* a masculine noun. However, the problematic passage in A57 a2 seems to contradict this analysis, since *oppal-yokāṃ* 'lotus-coloured' is generally interpreted as a feminine oblique singular. Hartmann (2013: 99f.) has correctly questioned this analysis. He lists a range of cases where the adjectival compounds of the type *oppal-yok* (literally 'lotus-colour' → 'lotus-coloured') take an obl.sg. TchA *-āṃ* when they refer to either masculine or feminine nouns.[146] This leads to the conclusion that they are not gender-differentiated and cannot therefore be used to identify the gender of a noun.

Since no substantives with an oblique plural in *-ās* (cf. *käntwās-yo*) can be interpreted as alternating, it follows that TchA *käntu* is definitely a masculine noun. This fits the Indo-European comparative situation nicely: given the fact that Avestan, Balto-Slavic, and some Old Irish and Breton formations point to the reconstruction of the noun as masculine in Proto-Indo-European (cf. AIGR: II.2, 492; EWAIA: I, 592), Tocharian seems to preserve the original state of affairs.

After having determined that 'tongue' is masculine in both Tocharian languages, the historical evolution of the noun is to be discussed. TchB *kantwo*, A *käntu* can be traced back to the familiar PIE word for 'tongue', PIE *$dn̥ǵ^{h}ueh_2$-*, through metathesis of *$dn̥ǵ^{h}$-* > *$ǵn̥d^{h}$-* (Ringe 1996: 45f.; Pinault 2008: 428). The singular paradigm nom. *-o*, obl. *-a* has given rise to debate, insofar the outcome of *$-(e)h_2$* is concerned. For this reason, it is best to start the diachronic analysis of the *kantwo*-type with this noun. I will first deal with the origin of the nom.sg. *-o*, and then with the obl.sg. *-a*.

In order to explain the nominative singular *-o*, three different proposals have been made:

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[144] On the correct meaning of *pātruk*, see now Malzahn (2014: 91f.).

[145] For the two forms discussed, no certain etymology has been proposed. Poucha (1955: 133) is the only one who suggests a link with the verb TchA *träyk-* 'be confused, faint'.

[146] I do not think that compounds of the type *oppal-yok** can be interpreted as a "Karmadhārayabildungen", as Hartmann seems to argue. These compounds are evidently of the Bahuvrīhi-type, as demonstrated also by the most prominent member of this type of compounds, TchB *ysā-yok*, TchA *wsā-yok* 'gold-coloured', calque from the Sanskrit Bahuvrīhi *suvarṇa-rūpa-* (Pinault 2008: 562).

(1) Asigmatic nominative singular, PIE *-eh₂, which regularly yielded PTch *-ā̊ > TchB -o. Accordingly, the nom.sg. can be reconstructed as PIE *dn̥ǵʰu̯eh₂ > PTch *kəntwā̊ > TchB kantwo (Hilmarsson 1986: 18; Pinault 2008: 428);

(2) Sigmatic nominative singular, so that TchB -o is the outcome of a Pre-PTch form with final *-ās (< PIE *-eh₂-s), which yielded *-ā̊(s) before the loss of final *-s. Thus, PIE *dn̥ǵʰu̯eh₂s > *kəntwās > PTch *kəntwā̊ > TchB kantwo (Peters 1991; Kim 2009; Malzahn 2011), while PIE *-eh₂ > PTch *-a;

(3) TchB kantwo does not derive from PIE *dn̥ǵʰu̯eh₂ directly, but rather from a nasal-extended variant. The new nominative singular *-ōn first became *-ō(n) and then TchB -o (Adams 1988a: 13-14, 2015: 177).

The reason why Adams reconstructs TchB kantwo as an old ŏn-stem (hypothesis 3) is twofold. To begin with, he argues that PIE *eh₂ first became PTch *a and then TchAB a, in both internal and final positions; however, if PIE *-eh₂- was in the proximity of an etymological nasal, the sequence *-eh₂N(-) should have given PTch *-oN(-), through rounding of the vowel (Adams 1988: 20). As a consequence, reconstructing a nom.sg. PIE *dn̥ǵʰu̯eh₂, acc.sg. *dn̥ǵʰu̯eh₂-m as the ancestors of TchB nom.sg. kantwo, obl.sg. kantwa would make no sense according to Adams' assumptions, since a paradigm with nom.sg. **kantwa, obl.sg. **kantwo is expected (i.e. exactly the opposite of the attested forms).

Second, he claims that, within Indo-European, Tocharian is most closely related to Germanic. One of the similarities singled out by Adams would include the extension of n-stems in both these Indo-European branches (Adams 1984). The same extension would have affected also TchB kantwo, A käntu, which has a nom.pl. -ñ < PIE *-n-es. As a consequence, he claims that TchB kantwo mirrors Goth. tuggo (< PGerm. *tungōn-, Ringe 2006: 81; Kroonen 2013: 526), as both reflecting PIE *dn̥ǵʰu̯ōn or PIE *dn̥ǵʰu̯eh₂ōn (Adams 2015: 177).

These reconstructions are questionable. Indeed, there is no evidence that Tocharian had a Germanic-like distinction between strong and weak inflection (Jasanoff 2018; Fellner 2013: 20; Pinault 2008: 478f.). Furthermore, it is today agreed that PIE *-eh₂- did not develop into PTch *-a-, but rather into PTch *-ā̊ > TchB o, TchA a, o (cf. e.g. PIE *bʰréh₂-tēr > TchB procer, A pracar 'brother'; PIE *u̯éh₂stu > TchB ost, A waṣt 'house').

On the other hand, the development of *-eh₂ in word-final position is still debated. This diachronic matter is behind the two remaining explanations on the origin of the nom.sg. -o. In order to assess these opposite theories, we must now look at the reconstructed inflection of this noun in Proto-Indo-European.

As pointed out above, the word for 'tongue' is attested in several Indo-European languages, though it has often been subject to various irregular and analogical changes: the initial l- in Lat. lingua (cf. also the regular OLat. dingua), Lith. liežùvis, and Arm. lezu has been influenced by the outcomes of the PIE root *leiǵʰ- 'to lick' (LIV²: 404; Olsen 1999: 67); in Sanskrit, we find a feminine ā-stem, Ved. jihvā́-, with -ā- extended throughout the whole paradigm, alongside with a feminine ū-stem juhū́- (EWAIA: I, 591; Pisani 1954: 143f.); in Old Persian and Germanic, it became an n-stem, cf. OP hₐzān-, acc. hₐzānam (Skjærvø

2007: 886), and PGerm. *tungōn (Ringe 2006: 81f.; Kroonen 2013: 526-7); OPr. *insuwis* and OCS *językъ* display loss of initial *d-* before syllabic nasal and resuffixation with *-kъ* in Slavic (Derksen 2015: 285); finally, in Celtic this noun became a *t*-stem, PCelt. *tangwāt-* (Matasović 2009: 368). [147] Among all these cognate formations, only Av. *hizuuā-* 'tongue' helps us to reconstruct the PIE inflectional type of this word. It is therefore worthwhile to have a closer look at the attested paradigm of Av. *hizuuā-*:[148] acc.sg. YAv. *hizuuąm* (< PIE *-$u̯éh_2$-m), gen.sg. OAv. *hizuuō* (< PIE *-uh_2-és), instr.sg. OAv. *hizuuā* (YAv. *hizuua*) 'with the tongue' (< PIE *-uh_2-$éh_1$) (Beekes 1985: 39ff.; EWAIA: I, 591f.; Martínez & de Vaan 2014: 60).[149]

This paradigm points to the reconstruction of a hysterodynamic type for Proto-Indo-European, with ablauting suffix *-$éh_2$-/*-h_2- (Kuiper 1942: 15; Peters 1991: 242):

Table III.14. PIE hysterodynamic paradigm of *$dn̥ǵ^hu̯éh_2$-

CASE	R	S	E	'TONGUE'
nom.sg.	-	é	-	*$dn̥ǵ^hu̯éh_2$(-)
gen.sg.	-	-	é	*$dn̥g^huh_2$-és
acc.sg.	-	é	-	*$dn̥ǵ^hu̯éh_2$-m

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[147] The main work on the evolution of the Celtic word for 'tongue' is Widmer (1997). He shows that nouns that originally belonged to other stems adopt inflectional patterns of the *t*-stems for different reasons. As far as the word for 'tongue' is concerned, he argues that PCelt. *tangu̯ā-* has been remodelled as a *t*-stem (PCelt. *tangu̯āt-*) because the regular outcome of the paradigm of this hysterodynamic noun would have created a unique and isolated inflection in Celtic. Widmer's theory implies that the original sigmatic nom.sg. *tangu̯ās* has been analogically influenced by the nom.sg. *-$V̄$-s* of the *t*-stem (< PIE *-Vt-s*). This view was accepted by some scholars (e.g. Matasović 2009), but there may be some problems of relative chronology. First, the reconstruction of a sigmatic nom.sg. for PIE *$dn̥ǵ^hu̯eh_2$- is not ascertained (see below the discussion on the main text). Second, in Proto-Celtic the *t*-stems were still not a productive morphological class (Vijūnas 2009). One could draw an optimistic view according to which this trend of attracting nouns from various classes to *t*-stems was only occasional in Proto-Celtic, but it became even more productive later, especially in Irish. However, the list of *t*-stems with a long vowel before the consonant, i.e. with nom.sg. *-$V̄(t)$-s*, includes only few substantives (Pedersen 1913: 101f. listed only 8 nouns), and for many of them a Proto-Celtic reconstruction is impossible. Indeed, they are not listed in Matasović's dictionary (2009). As a consequence, the transition of the PCelt. word for 'tongue' from an *ā*-stem to a *t*-stem has happened in a stage in which the nouns with *t*-inflection were just a few, especially those with nom. sg. *-$V̄$s*. I therefore do not believe that the Proto-Celtic word for 'tongue' developed a *t*-inflection due to its sigmatic nominative singular.

[148] For the evolution of PIE *$dn̥ǵ^hu̯eh_2$- in Indo-Iranian, see EWAIA: I, 591-3 and now Lipp (2009: I, 188f.), who reconstructs the following transitional stages: IIr. *$ǰiǰ^huaH$- > PIr. *dzidzwā > *[zidzwā] (dissimilation) > *[sidzwā] > OAv. *hizuua-*. See also de Vaan (2011: 6).

[149] On Av. *hizū-* and the instrumental plural OAv. *hizubīš*, see further Benveniste (1954: 30f.), Kuiper (1942: 16; 1978: 12ff.), and Peters (1991: 243).

Actually, the nominative singular of the Avestan word is more difficult to reconstruct, since it is only attested in compounds. I found the following attestations: [150] Av. *hizuuå̊.uxδāiš* 'parole prononcée par la langue' (Y. 18.1; Y. 47.2; Y. 51.3), OAv. *hizuuå̊.āuuərətō* 'prisonnier de la langue' (Y. 45.1), YAv. *hitō.hizuuå̊* 'dont la langue est liée'[151] (Y. 65.9). The interpretation of Av. *hizuuå̊°* as the first member of the compound is disputed in both the linguistic and the philological analysis. For this reason, the two modern editions of the Gāthās (Kellens & Pirart 1988-1991 and Humbach 1991) have different readings: on the one hand, Kellens & Pirart have *hizuuå̊°* because it is "massivement imposé par la tradition manuscrite"; on the other hand, Humbach does not analyse the Old Avestan forms as compounds, emending *hizuuā* as an instrumental singular from *hizū-*. Humbach argues that the variant *hizuuå̊ uxδāiš* "by thought (voiced) by one's tongue" is due to corruption, because final *-ā* of *hizuuā* would have been assimilated to the initial *u-* of *uxδāiš,* due to the oral transmission of the text. In a similar way, the great majority of the manuscripts read *hizuuå̊* for the sequence *drəguuå̊ hizuuå̊ āuuərətō* "the deceitful one, invited by one's tongue" (Y 45.1.), which, according to Humbach (1991: 165), has facilitated the writing variant with *-uuå̊*.

Although Kellens & Pirart maintain the reading with *hizuuå̊*, they state that *-å̊* is an "absurd terminaison", explaining the final vowel as a peculiarity of this word in the internal compound boundary. [152] As a matter of fact, *hizuuā-* and *hizuuå̊-* alternate frequently in the manuscripts, but the variant *hizuuå̊°* is considered a bizarre form by almost all experts of Avestan (cf. already Kuiper 1978: 16, who argued that readings with *hizuuå̊°* must be corruptions for *hizuuā-*).[153]

The nom.sg. YAv. *hitō.hizuuå̊* (Y. 65. 9) is even more difficult to analyse. On the basis of this form, Peters (1991) and Widmer (1997), followed by Malzahn (2011), reconstruct a sigmatic nominative singular PIE *$d\dot{n}\acute{g}^{h}\mu\acute{e}h_2$-s*: indeed, from a diachronic point of view, only a final sequence PIr. *$-ās$ (< *$-eh_2$-s) turned into Av. *-å̊*, while PIr. *$-ā$ (< *$-eh_2$) yielded Av. *-ā*.[154] However, I believe that YAv. *hitō.hizuuå̊* is not sufficient evidence for arguing that

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[150] The translations presented follow Kellens & Pirart (1988-1994). On the compound *hizuuārəna* 'by moving the tongue' (Yt. 5.6), Oettinger (1983: 187-88), who reconstructs **hizuuā-arnā-* 'by a tongue movement'.

[151] This compound is usually translated as 'having a bound tongue'. For a new translation of *hitō.hizuuā-* 'dont la langue est liée', see Kellens (2009: 333).

[152] For different proposals on the interpretation of *hizuuå̊.āuuərata-*, see Kuiper (1978: 12ff.), Kellens & Pirart (1991: 187f.), and Kellens (1994: 60-61).

[153] See Pirart (1986: 188) for the distribution of the variants. See also Skjærvø (2007: 886), who puts a question mark after a hypothetical nominative singular attestation of *hizuuā-*.

[154] It seems to me that the supporters of the reconstruction of a sigmatic nom.sg. come from the School of Vienna, where they certainly attained Professor Jochem Schindler's classes. Indeed, Malzahn, Peters, and Widmer all studied and/or teach(ed) at the University of Vienna. Furthermore, in EWAIA under the etymological discussion of Skt. *jihvá́-*, Mayrhofer refers to Schindler's reconstruction of Av. *hizuuå̊* < PIE *$d\dot{n}\acute{g}^{h}\mu\acute{e}h_2s$*. However, as far as I know, Schindler has never discussed this reconstructed form in his publications.

the PIE nominative singular was sigmatic, because the nominative singular of *hizuuā*- never occurs as an independent word and is only attested in compounds.[155] Furthermore, in the *Frahang ī ōīm*, an Avestan-Pahlavi glossary, the gloss of Pahl. *uzwān* 'tongue' is Av. *hizuua* (nom.sg.), not *hizuuå* (EWAIA: I, 591; Reichelt 1900: 187). However, the dictionary entry cannot be considered as probative evidence, since it could have been based on other inflected forms.

For all the aforementioned reasons, we do not have sufficient evidence in support of the reconstruction of a sigmatic nom.sg. for the PIE word *$dn\hat{g}^huéh_2$*-; I therefore see no strong comparative evidence for claiming that the nom.sg. *-o* of TchB *kantwo* is to be traced back to a sigmatic nom.sg. *$-eh_2-s$* (cf. also Hilmarsson 1986; Pinault 2008: 428, 286, 2012: 189 fn.48).[156] In any case, I assume that both PIE *$-eh_2$* and *$-eh_2-s$* would have turned into *-å* in Proto-Tocharian (see §4.3.4.4).

As the nominative, also the oblique singular TchB *-a* has given rise to controversy. Scholars usually argued that the obl.sg. *-a* has been influenced by the *$\ŏn$*-stems, so that TchB *-a* would be the outcome of either the obl.sg. PTch *-an* < acc. sg. *$-\bar{o}n-m$* (Adams 1988a: 13-4; Hilmarsson 1986: 18) or the late gen.sg. PTch. *-ansæ*, resegmented as *-a-nsæ* (Pinault 2008: 486f.).

On this issue, Malzahn (2011: 96f.) has now proposed a different explanation. Following the teachings of the late Schindler, she reconstructs the acc.sg. of the PIE word for 'tongue' as *$-eh_2-m̥$* (with syllabic nasal), and therefore suggests a sound law "Very Early pre-PT

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[155] If one compares Av. *hizuuā*- with Ved. *jihvá́*-, some issues related to both the inflection and the gender of the IIr. noun come to light. Indeed, Av. *hizuuā*- is a masculine, while Ved. *jihvá́*- is a feminine. Moreover, the Indian word does not attest a sigmatic nominative singular. The relevant problems that the comparison between the two cognate forms highlights are: (1) the mismatching gender of the nouns; (2) the different shape of the nominative singular. Lipp (2009: I, 188-90) reconstructs a masculine noun with asigmatic nominative singular PIE *$dn\hat{g}^huéh_2$*, which yielded IIr. *$j\acute{\i}{}^hu\bar{a}$*. In Indian, the word has been reinterpreted as a feminine *ā*-stem, since the members of the *ā*-inflection were only feminine since the Vedic period (Lazzeroni 1997: 193-205). On the other hand, if final *-å* in YAv. °*hizuuå* is not due to compounding, one may wonder whether the masculine gender of the noun has hindered its inclusion into the feminine *ā*-stems, while the nom.sg. has become sigmatic under the pressure of original root nouns ending with a vowel, like *xå* f. 'well', °*stå* 'standing', *paṇtå* m. 'path', *mazdå* m. 'Mazdā' (Skt. *medhā*- f. 'wisdom' < IIr. *$mas-d^haH$*- < PIE *$mn̥s-d^heh_1$*-). One could also be tempted to say that the alternation between *-uuā* and *-uuå* in the manuscripts partly mirrors this development. But this is speculative.

[156] Malzahn (2011: 89) claims that one would like to derive the nom.sg. *-a* of the Tocharian B feminine "thematic" adjectives from a non-ablauting PIE *eh_2*-stem. However, the ending of these Tocharian adjectives is not *-a*, but rather -*^ya*, which cannot be reconciled with *$-eh_2$* > *-ā*. Indeed, according to Malzahn's explanation, the expected Tocharian B outcome of the PIE adjective in *-reh_2* should have been TchB **-*ra*, but the attested form is rather TchB *-rya*. Her claim cannot therefore be considered as a real counterargument against the evolution of PIE *$-eh_2$* > TchB *-o*. I will discuss more thoroughly the evolution of PIE *$-eh_2$* in word-final position in other sections of this chapter. For a discussion about the evolution of the feminine inflection in the Tocharian adjective, see §4.3.4.4.

*-ah₂m̥ > Later pre-PT *-ăm". I find this sound law very hard to accept. First, it is not falsifiable, because there are no Tocharian parallels that may testify it. Second, even if we reconstructed a syllabic acc.sg. *-m̥, I do not understand what the exact phonetic condition was for causing the loss of the laryngeal in the sequence *-eh₂-m > *-aH-m̥ (perhaps through *-aH-əm?) > *-ăm.

Klingenschmitt (1994: 393), followed by Kim (2009: 79), argues that the obl.sg. -a is from the zero grade *-h₂-, which was not characteristic of the accusative singular in the hysterodynamic type. This implies that the obl.sg. -a is to be traced back to the weak stem. Pinault (2008: 483-4) questioned this reconstruction, since it would not be coherent with the general development of the Tocharian oblique, which mostly mirrors the PIE accusative. He correctly points out that, in several inflectional types of Tocharian, the nominative and the accusative must have coalesced in the singular "en raison des lois phonétiques des finales". The same development must be assumed also for the paradigm of *kantwo*: both nominative and accusative should have merged in *kəntwå < *ǵn̥dʰu̯eh₂(m) in Proto-Tocharian, while the gen.sg. *ǵn̥dʰu̯h₂-és should have yielded *kəntwa. This *kəntwa can be the direct ancestor of TchB *kantwa* /kə́ntwa/, A *käntu* (cf. TchA °*käntwā-ṣi* 'related to tongue or language', Carling 2009: 163).

As a matter of fact, this is not an isolated trend of development, since there are other Tocharian obl.sg. endings that cannot go back to the PIE accusative. As pointed out in §3.5.1.2, the contrast between nom.sg. -(ʸ)a vs. obl.sg. -(ʸ)o in the *śana*-type mirrors the ablauting alternation between strong and weak stem of the suffix *-(i)h₂, *-(i̯)eh₂-. In addition, Peyrot (2012) has recently identified indisputable correspondences between the TchB obl.sg. -ai and the TchA gen.(-dat.) sg. -e and has highlighted the fact that the Tocharian B feminine adjectives (with obl.sg. -ai) do not attest genitive singular forms. This clear piece of evidence allows us to support the reconstruction of a dative (or locative) PIE *-(e)h₂-(e)i as the ancestor of the obl.sg. TchB -ai (Pedersen 1941: 53, see further §3.7.2. and 4.3.3.). Also, the obl.sg. forms of the kinship terms in PIE *-ter- of the type TchB *pātär* 'father', *mātär* 'mother', *protär* 'brother' cannot be derived from the acc.sg. PIE *-tér-m̥, which was expected to have yielded **-cär, but it is instead the outcome of the zero grade stem of the gen.sg. *-tr-és > PTch *tŕə > TchB -trä ~ -tär (cf. Lat. *patrem* vs. Gk. πατέρα).

Back to the obl.sg. TchB *kantwa*, I believe that, after the formal confusion between the nominative and the oblique in the paradigm of the singular (both resulting in *-å in Proto-Tocharian), Tocharian B has acquired a new obl.sg. *-a, which is itself the regular outcome of the weak stem of the hysterodynamic paradigm (probably of the gen.sg. PIE *-h₂-és).[157]

All things considered, the diachronic evolution of the paradigm of TchB *kantwo*, A *käntu* 'tongue' can be schematised as follows:[158]

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[157] Unfortunately, this analysis cannot be confirmed by Tocharian A, where the Proto-Tocharian nonhigh vowels disappeared in word-final position.

[158] There is some hesitation in the gen.sg. of Tocharian A. Carling (2009: 130) indicates two variants, TchA *käntwis* and TchA *käntwes*, both attested in A300 (at lines b1 and b3 respectively).

Table III.15. Evolution of the singular paradigm of TchB *kantwo*, TchA *käntu*

	PIE			PRE-PTCH		PTCH				TCHB	TCHA
NOM.	*dņǵʰu̯éh₂	>*ǵņdʰu̯ās	>	*kəntwå	>	*kəntwå		>	NOM.	*kantwo*	*käntu*
ACC.	*dņǵʰu̯éh₂-m	>*ǵņdʰu̯ām	>	*kəntwå	↗	*kəntwa		>	OBL.	*kantwa*	*käntu*
GEN.	*dņǵʰuh₂-és	>*ǵņdʰu̯ǎs	>	*kəntwa	>>	*kəntwanse (?)		>	GEN.	*käntwāntse*	*käntwis*

TchB *karyo** 'viscera (?)', A *kri* 'will'

Besides TchB *kantwo*, another noun with clear etymological comparanda is TchB *karyo**
'±viscera', A *kri* 'will, desire'. Since Sapir (1936: 263), TchA *kri* has been connected to the
familiar PIE word for 'heart', as represented by e.g. Skt. *hŕd-*, OAv. *zərəd-*, Gk. κῆρ, Lat. *cor*
(gen. *cordis*), etc. In fact, a Proto-Tocharian singular paradigm nom.sg. *kəryå*, obl.sg.
kərya would fit well from both a Tocharian and an Indo-European comparative
perspective (Hilmarsson 1996: 100). We can therefore posit PIE *ḱr̥djeh₂ as the ancestor of
TchB *karyo**, A *kri* (cf. Gk. καρδίᾱ, Hom. Gk. κραδίη but also the stem Hitt. *kard(i)-*, OIr.
cride and Skt. *hŕdaya-*, Av. *zərədaiia-*).

TchB *kāswo* 'leprosy', TchB *kātso*, A *kāts* 'abdomen, belly', and TchB *patso* 'pollen,
stigma'

As regards TchB *kāswo* and TchB *kātso*, A *kāts*, I believe no certain etymologies have been
proposed so far.

Hilmarsson (1996: 107) relates TchB *kāswo* to PGerm. *haswa-* 'grey' (cf. ON *hǫss*, OE
haso, MHG *heswe* 'pale, dull'; cf. further PGerm. *hasan-*, *hazan-* > ON *heri* 'hare', OE *hara*
'id.', OHG *haso* 'id.', MDu. *has* 'id.') both from PIE *ḱh₂es- 'grey; hare' (cf. also Lat. *cānus*
'grey, ashen, old' < *ḱas-no-; Ved. *śaśa-* 'rabbit, hare', Khot. *saha-* 'id' < *ḱas-o-, etc.) followed

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This fragment is part of the *Maitreyasamiti*. Parallels from the Old Uyghur *Maitrisimit* can be
identified: A300 a5 can match Hami 21.5v9-12 (Geng et al. 1998: 33 and 90; Michaël Peyrot p.c.), while
A300 a7 can match Mainz 973.r2-4 (Tekin 1980: 179-80). See Laut & Wilkens (2017: 184-5 and 385).
These documents belong to Chapter 21 of the *Maitrisimit*. As far I can see, a Uyghur parallel of line
b3 is missing. However, the fact that two variants of a genitive form are attested just in the same
fragment is very suspicious, and TchA *käntwes* is actually written *kätwes*: b3 *ṣñi kätwes mätkont
prakte ypamtär kārūṇik*. This line may refer to tortures and penances the penitents suffered in one
of the eight hells. Thus, TchA *kätwes* may be interpreted as an obl.pl. of *kätwe**, which has been
translated by Hilmarsson (1996: 114) with 'deception' or 'sin', and the line may be translated as
follows: "we make penance to ourselves, to our own sins". As a consequence, I do not consider this
kätwes as a miswritten genitive singular form of TchA *käntu* 'tongue'. See further Malzahn (2010:
553).

by *-u̯o-. If so, the ancestor of TchB *kāswo* would be *ḱas-u̯eh₂ (cf. also Hackstein 2003: 84).[159]

Another possibility is to connect *kāswo* with PIE *ḱes-/*ḱseu̯- 'to comb, scratch', but the vocalism of the root and the lack of palatalisation in Tocharian would be difficult to explain. Following Van Windekens (1976: 625), Tremblay (2005: 441) proposes a loanword from an unattested Khotanese word *kasva- < OIran. *kasu-u̯iš- '± bubonic', otherwise attested only in Av. *kasuuiš-. However, the isolation of this word in Iranian urges caution.[160] Since the last two possibilities are too uncertain, I will focus on Hilmarsson's derivation of TchB *kāswo* from the PIE root for 'grey'.

TchB *kāswo* is attested four times: twice as a nominative TchB *kāswo* (IT305 b5; THT1111 b3), once as a perlative TchB *kāswasā* (B282 a4 [arch.]), and once in the derivate *kaswātse* 'leprous' (IT305 a6). According to Filliozat (1948: 56ff.), the fragment IT305 is a Tocharian reworking of passages from the *Sūtrasthāna*, the first book of the Āyurvedic *Carakasaṃhitā*. At line b6, TchB *kāswo* matches Skt. *kuṣṭha*, the Sanskrit technical term referring to skin disease in general, and to leprosy in particular (Emmerick 1984: 96f.). Moreover, the derived adjective TchB *kaswātse* is the translation of Skt. *kuṣṭhin-* 'suffering from *kuṣṭha*, leprous'. On the contrary, B282 is not a medical fragment, but a poetic composition (Skt. *kāvya-*), where we find the following passage: *śaiṣṣe se kleśanmaṣṣai wämyu räskre kāswasā*, "this world is harshly covered by the leprosy of kleśas" (a4).

The last document to be discussed (THT1111) may confirm the translation of TchB *kāswo* 'leprosy' and may suggest some new etymological arguments. The passage in question is from the Tocharian *Karmavācanā*, of which several fragments are Sanskrit-Tocharian bilinguals.[161] At line b3, we find a list of diseases: *no eṅ(k)wetse toṃ te y(äknetsana teka)nm(a) koṣṭä kāswo piśträ kṣai apasmār*, "now there are such diseases of a man: *koṣṭä, kāswo, piśträ, kṣai, apasmār*" (cf. Schmidt 2018: 74; Tamai 2014: 378). Although an internal Sanskrit parallel for this passage is missing,[162] TchB *koṣṭ* is clearly borrowed from Skt. *kuṣṭha-* 'leprosy'. One may therefore wonder whether we have a sequence of apparent synonyms, i.e. *koṣṭä* and *kāswo*. However, following Schmidt (1986: 68-70, 2018: 74), we can interpret these two terms as different types of leprosy: the former would be the 'black disease', while the latter would be the 'white disease', a distinction that mirrors the modern one between lepromatous (black) and tuberculoid (white) leprosy. This identification is further confirmed by a specific section of the Sanskrit *Karmavācanā* that is about the rite of ascetic vetting thanks to which a candidate enters the community (Skt.

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[159] This etymology seems to be accepted also by Malzahn (2011: 99), who says that the Tocharian word may go back to an old plural form denoting 'the grey ones'.

[160] For the etymology of the Avestan term and dubious Indo-European cognate forms, see Kellens (1974: 367-8) and Humbach (1974: 92).

[161] For an overall overview of all known Tocharian *Karmavācanā* materials, see Ogihara (2013: 325-6). For the edition and the translation of the texts, see Schmidt (1986; 2018), Tamai (2014), and Ogihara (2013), who has also discovered some new fragments.

[162] The Sanskrit parallel of THT1111 is attested in THT1116, a fragmentarily preserved document in which the list of diseases is missing, due to the damaged condition of the fragment.

upasaṃpadā 'ordination') and in particular with the so-called *Befragung im Geheimen* (Härtel 1956: 77ff.). In this section, the *Unterweiser im Geheimen* explains one of the obstacles that may prevent the admission of the candidate: the diseases. Those which occur in both Sanskrit and Tocharian are (Schmidt 2018: 103): epilepsy (Skt. *apasmāra-* = TchB *apasmār*), tuberculosis (Skt. *kṣaya-* = TchB *kṣai*), goiter (Skt. *gaṇḍa-* = TchB *piśträ* ?), leprosy (Skt. *kuṣṭha-* = TchB *koṣṭä* and Skt. *kilāsa-* = TchB *kāswo*). According to Sāyaṇa, a medieval commentator of the Āyurveda, Skt. *kilāsa-* is 'white leprosy'. This view is partly shared by Emmerick (1984: 96), who concludes that *kilāsa-* must have meant a "disorder of the coloration of the skin characterised by whiteness", although it is unclear whether it denoted the same skin disease already in the Āyurvedic medicine. Now, given the fact that TchB *koṣṭ* corresponds to 'black leprosy', and TchB *kāswo* to 'white leprosy', I think that the etymological connection proposed by Hilmarsson with PIE *$\acute{k}h_2es$-* 'grey, whiteness' is correct. The derivational and semantic developments are as follows: *$\acute{k}h_2s$-$u̯o$-* 'having whiteness' → *$\acute{k}h_2s$-$u̯e$-h_2* 'mass of whiteness' > PTch *$kaswå$* > TchB *kāswo* 'white leprosy; skin disease'.

The etymology of TchB *kātso*, A *kāts* 'stomach, belly'[163] is equally disputed. Pinault (1991: 186) suggests a connection with Gk. κατά 'down', Hitt. *kattan* 'below', and further argues that the Tocharian word is the outcome of an animate derivative of the PIE adverb *kati*, PIE *$kat̯i$-eh_2*. The semantic evolution would have been 'below' → 'what is below' → 'stomach'.

Adams (DTB: 165) puts forward another hypothesis, connecting the Tocharian word with PIE *$g^wōt$-* 'belly', with alleged cognates in Germanic (e.g. Goth. *qiþus* 'stomach, belly') and probably in Latin (Lat. *botūlus* 'sausage'). This form would be suffixed in *-$i̯ōn$ or in *-$i̯eh_2$*. In IEW: 481, PIE *g^wet-* is said to mean 'swelling, rotundity', but from the point of view of the lexical typology it is quite preferable to state that the root meant 'stomach, belly' already in the proto-language. Indeed, in a diachronic approach to lexical typology, a general diachronic trend from a concrete to an abstract meaning can be fixed. Furthermore, the continuants of this root mean precisely 'stomach, belly', e.g. PGerm. *$k^wiþu$-* > Goth. *qiþus* 'stomach, womb', OIcel. *kviðr* 'belly, womb' (and *kviðugr* 'pregnant'), Anglo-Saxon *cwiða* 'womb', OHG *quiti* 'vulva', etc. From a formal perspective, Adams reconstructs the protoform from which TchB *kātso*, A *kāts* derives with lengthened *o*-grade of the root. The *o*-grade is perhaps attested also in Lat. *botūlus* 'cumb, sausage' (loanword from an Italic language, where the PIE labiovelars developed into labial stops, Weiss 2009:

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[163] TchA *kāts* seems to have a slightly different meaning, namely 'womb' (Peyrot 2012: 207 fn.32). If so, we have a case of asymmetry in overt marking: 'womb' is expressed by an overtly marked term on the basis of 'belly/stomach', but not vice versa. This assumption can find some confirmation in the semantic evolution of terms of the same meaning in some other languages. For example, Ved. *udára* 'belly' > Old Gujarātī loc.sg. *ūyari* 'womb'; Prākrit *peṭṭa-*, *piṭṭa-* 'belly' > Sindhī *peṭu* 'belly, womb, foetus'.

473 fn.45), so that one could also say that PIE *$g^w\bar{o}t$- derives from PIE *g^wet- through both qualitative and quantitative ablaut. But many details are unclear.[164]

Finally, Hilmarsson (1996: 112) connects TchB *kātso*, A *kāts* 'belly, womb' with the hapax legomenon TchA *kāc** 'skin' (A147 b4 *y(p)es(uṃts)enāṃ kācyo epunt yṣitstseyaṃ lmont* "sitting on a couch, covered with the skin of a leopardess", cf. Carling 2009: 109), with possible cognates in Lat. *cutis* 'skin', ON *húð* 'id.', OHG *hūt* 'id.', Lith. *kiáutas* 'shell, rind, peel', etc. If so, TchB *kātso*, A *kāts* could be from PIE *kuH-$ti̯$-eh_2 > *k^watså > PTch *katså, with delabialisation of *k^w > *k before a consonant (Hilmarsson 1985b; Kim 1999: 158 fn. 42).

The origin of TchB *patso* 'pollen; stigma' is also unknown. Adams (DTB: 388) is the only one who has proposed an etymology, reconstructing *b^hed^h-$i̯eh_2$ from *b^hed^h- 'to stick' (cf. OCS *bodlъ* 'punctured, spine of plant'; for the semantic development, Gk. στίγμα from στίζω 'to mark').

TchB *tāno* 'seed of grain' and TchB *mālo* '±inebriating drink'

Another noun of the *kantwo*-type is usually considered to go back to the same PIE inflectional type of *kantwo*, i.e. TchB *tāno* 'seed of grain'. Two different etymological analyses have been proposed so far: (1) TchB *tāno* goes back to PIE *d^hoH-neh_2 'grain' (> the plurale tantum Skt. *dhānā́ḥ* 'grain', Khot. *dānā*- 'id.', Manichean Sogd. *δ'n* 'id.', Lith. *dúona* 'bread', Latv. *duõna* 'slice of bread, heel of a loaf'; Kortlandt 2013: 96 suggests a derivation from the zero grade *$d^hh_3nā$, with vocalisation of the laryngeal)[165] or (2) it is a loanword from either Indian or Iranian.[166] The former hypothesis has no problems from a phonological point of view; it is sustained by e.g. Adams (DTB: 303) and Pinault (2008: 486).[167]

Recently, Peyrot (2018: 258f.) has supported the latter hypothesis, since he claims that TchB *tāno* has been borrowed from Iranian *$dānā$-. There are two indications that may substantiate this analysis. On the one hand, the semantic resemblance between TchB *tāno* and Khot. *dānā*- as both referring to single seeds that may be counted one by one is admittedly remarkable; on the other hand, Peyrot reveals that the Baltic forms have some semantic problems if derived from PIE *d^hoH-neh_2 'grain' (see Peyrot 2018: 259-60 for these problems and for etymological suggestions). If Baltic must be removed from the list of

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[164] According to NIL: 185ff., Germanic is to be connected with *$g^wi̯eh_3$- 'to live'. Kroonen (2013: 319) reconstructs PGerm *$kwebu$-, considering the derivation from PIE *$g^wi̯h_3$-i- conjectural. See also Mallory & Adams (2006: 185-6).

[165] Cf. also the Young Avestan compound *dānō.karš(a)*- 'grain-carrying', where the *ō*-vocalism of *dānō°* does not necessarily indicate that it is a masculine *a*-stem (Malandra 2002: 229f.; EWAIA: I, 787).

[166] See Klingenschmitt (1994: 394 fn. 136).

[167] I think there is no reason for claiming that the final -*o* of TchB *tāno* should reflect an original plural *-eh_2-*es* (Peters 1991: 243, followed by Malzahn 2011: 98).

comparanda, the peculiar distribution of the term strongly suggests that Tocharian borrowed from Iranian.

There is, however, a serious problem with this analysis. Indeed, TchB *tāno* belongs to a non-productive class of nouns, where borrowed items are not expected. Peyrot adduces TchB *twāṅkaro* 'ginger' (← Khot. *ttuṃgare* 'id.'; see Bailey 1937) as an example of Iranian loanwords inserted into genuine Tocharian inflectional classes (the so-called *arṣāklo*-type). However, this class is more productive than the *kantwo*-type and its productivity can be easily reconstructed for Proto-Tocharian as well (see §3.7.2).

Still, I believe that the problem of the inflectional class of TchB *tāno* can be solved, because another loanword can now be included into the *kantwo*-type. It is TchB *mālo* '± alcohol, spirit' (obl.sg. -*a*, see Ogihara 2011: 135). Since Bailey (1959: 131), a foreign origin of this term has been suggested: it has been connected with YAv. *maδu*- 'Beerenwein', Sogd. *mδw* 'wine', Khot. *mau*- 'intoxicant drink' (cf. Skt. *mádhu*- 'sweet, sweet drink', EWAIA: II, 302-3). As Adams (DTB: 483) pointed out, TchB *mālo* must derive from an Iranian variety where **-d*- became -*l*-. Therefore, Winter (1971: 152) connected this word with Bctr. μολο 'wine' < *malu- < *madu-. As one can see, however, the vocalism of Bctr. μολο /mul/ deviates from that of TchB *mālo* /málo/. The Bactrian vowel is the outcome of *u*-affection of an original **-a*- (in labial environment), which results in a back, rounded vowel Bctr. -*o*- (Gholami 2014: 65). Since the class to which TchB *mālo* belongs testifies its old acquisition, one may claim that Tocharian borrowed this word before *u*-umlaut took place in Bactrian.

To conclude, we can say that both TchB *tāno* 'seed of grain' and TchB *mālo* 'spirit, alcohol' are loanwords from Iranian.

If we look at the gender of the nouns just discussed, we notice that TchB *kantwo*, A *käntu* 'tongue' and TchB *patso* 'pollen, stigma' are the only certain masculine nouns, while four of the last five substantives are feminine (TchB *tāno* 'grain', TchB *mālo* 'alcohol', *kāswo* 'leprosy', *kātsο* 'belly, abdomen'). The gender of TchB *karyo** is unknown, but its equivalent TchA *kri* is masculine (Carling 2009: 172). The interpretation of this evidence is crucial to the historical analysis of the obl. sg. -*a*. In my view, two possibilities can be envisaged.

If one interprets the feminine gender of TchB *kāswo* and *kātso* (but cf. the masculines TchA *kri* and TchB *patso*) as due to their derivation from non-ablauting *eh₂-stems, then the obl.sg. -*a* must be secondary. If so, this may have been analogically created after TchB *kantwa*;, in order to disambiguate the nominative from the oblique singular (both ending in **-ä*). This explanation would work formally fine for TchB *kāswo* (final -*wo* in both nouns).

Otherwise, one could be tempted to reconstruct an ablauting paradigm for the ancestors of all these nouns, so that they inherited (or generalised) the full grade in the nominative (**-éh₂*-) and the zero grade in the weak cases (**-h₂*-). If so, there would be no strict historical link between the gender and the inflectional type of these nouns. Kortlandt (2013: 95f.) reconstructs a PIE hysterodynamic type with full grade in the nom.sg. and zero grade in the other cases for some of the members of the *kantwo*-type (i.e. *kantwo*, *kātso*, *tāno*). This reconstruction is possible, although not entirely provable. Between the

two hypotheses, I will favour the latter, as one can also argue that some old derivatives in *-ā < *-eh₂ developed an ablauting paradigm in a Pre-Proto-Tocharian period. This is an issue we will return to in the following sections (see §3.7.2.5), where I will show that it is more economical to assume that Tocharian inherited and generalised the hysterodynamic type in *-h₂ in the older stage of the Pre-Proto-Tocharian nominal inflection.

TchB *kāwo* 'desire' and TchB *tsāro* 'monastery'

The deverbal nouns TchB *kāwo* 'desire' and *tsāro* 'monastery' must be discussed. The latter has been thoroughly investigated by Malzahn (2011: 98f.). I think that her analysis can also account for the evolution of *kāwo.*

Following Krause (1952: 51), she links TchB *tsāro* 'monastery' with the verb *tsər-* 'be separated, separate'. However, the derivation of the noun from the verb raises some difficulties: (1) the non-productivity of the *kantwo*-type as a class of abstract derivatives;[168] (2) a deverbal noun from *tsər-* is expected to show root-vowel *-a-* /ɔ́/, instead of *-ā-* /á/ (cf. TchB *palsko* 'thought' from *pləska-* 'to think'; TchB *traṅko* 'sin' from *trəṅk-* 'to lament'). In order to solve these problems, she claims that TchB *tsāro* is a very archaic derivative of the Indo-European root from which also the verb TchB *tsər-* derives, i.e. PIE *der-* 'to split'. She further reconstructs a derived abstract in *-eh₂, i.e. PIE *dōreh₂.*[169]

In a similar way, TchB *kāwo* 'desire' is usually regarded as a deverbal noun from *kawa-* 'to crave' (DTB: 164-5). If so, it would be a very archaic derivative from the same PIE root from which also the verb TchB *kawa-* goes back, PIE *k(u̯)ap-* 'well up' (Malzahn 2010: 563; but LIV² does not reconstruct such a verbal root). However, the matter is a little more difficult than it seems.

The problems involved are: (1) the lenition -p- > -w- in both the noun and the verb; (2) TchA *kāpā-* 'to surge up; be greedy' as the apparent cognate of TchB *kawa-* 'to crave'; (3) alternation of -p- and -w- in the inflection of the Tocharian B verb.[170] The formal match between TchB *kawa-* and TchA *kāpā-* is an issue on which scholars strongly disagree: on the one hand, Malzahn (2010: 563) reconstructs PTch *kapa-*, implying that Tocharian A would attest the original form; on the other hand, Peyrot (2013: 729) has a diametrically opposite view, as he claims that the Proto-Tocharian form was *kawa-*. In fact, the only TchB attestation of a *p*-form from *kawa-* is the isolated prt.ptc. *kakāpau* (adduced by Saito 2006: 301), which is not easy to interpret and translate (B66 a8).[171] Since we do not have any parallel to account for the consonant mismatch between Tocharian B and A (that is, PTch *-p- > TchB -w- or PTch *-w- > TchA -p-),[172] I think that the best solution is

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[168] On the contrary, among the noun classes with nom.sg. -o, the alternating members of the *oko*-type are verbal abstracts (with nom.obl.sg. -o, nom.obl.pl. -o-nta). On this class, see §3.8.2.1.

[169] In fact, Malzahn claims that TchB *tsāro* is the outcome of a plural *dōreh₂-es.*

[170] See Malzahn (2010: 562f.) and Peyrot (2013: 729) for further details.

[171] On TchB *kakāpoṣ*, see Malzahn (2010: 563).

[172] The evolution -p- > -w- is only attested in Late Tocharian B, and not in the prehistory of the language, nor in its archaic phase (Peyrot 2008: 88-90).

reconstructing different protoforms for the two Tocharian languages. Indeed, while TchA *kāpā-* can be the regular outcome of PIE **k(ṷ)ap-* 'to well up', the root from which the Tocharian B verb comes from may be PIE **geh₂ṷ-* 'to rejoice' (> Gk. γηθέω 'to rejoice', γάνυμαι 'to be glad', Lat. *gaudeō* 'id.'), which resulted quite regularly in TchB *kawa-*.[173] The reconstruction of two different roots for the Tocharian A and B verbs could also explain the fact that in Tocharian A the verb is intransitive, while in Tocharian B it is transitive. Furthermore, it seems to me that TchB *kawa-* and TchA *kāpā-* differ quite remarkably also in the meaning. In Tocharian A, this verbal root is attested in the following forms (Malzahn 2010: 562-3): 3sg.subj.act. *omäl ysār ṣuṅkac kāpaṣ-äṃ* "hot blood will rise to his throat" (YQ I.7 b1, cf. Ji 1998: 51), and 3sg.prt.act. *ś(wā)tsiṣy ākāl-yo kāpar ymār* "in their wish for food they soon became fully impatient" (A340 a3, cf. Schmidt 1974: 146 fn.1). As a consequence, the meaning of TchA *kāpā-* is 'to surge up, be impatient', while TchB *kawa-* means specifically 'to crave' (Peyrot 2013: 729; cf. also the derivatives TchA *kāplune** 'boiling' vs. TchB *kāwalyñe* 'desire, craving').

As regards TchB *kawo* 'desire', it would be an old derivative of this root (perhaps of the τομή-type?): PIE **ǵ(o)h₂ṷ-eh₂ > *ǵō/ăṷā* > PTch. **kawå* > TchB *kāwo*, intended as 'what makes someone glad' → 'what someone desire'.[174]

The suffix TchB *-to*, obl.sg. *-ta*, TchA *-t*

We have seen that TchB *laukīto* 'stranger' and, if well identified, TchB *nekīto** '± destroyer' may belong to the *kantwo*-type. The problem here is the origin of the suffix -(*i*)*to*, which is an unproductive derivational morpheme in Tocharian. The only match between Tocharian A and B is TchB *laukito* : TchA *lokit* 'guest, stranger', with regular monophthongisation **aw > o* in Tocharian A (cf. also the gen.sg. TchA *lo«ki»tāp-äk* in A6 a4). In Tocharian A, we also find TchA *mäśkit* 'prince', which is matched in Tocharian B by *mcuṣke* 'id.' (see fn. 32). As a consequence, the suffix TchB *-ito*, A *-it* only surfaces in four nouns, two in Tocharian B (*laukīto* and *nekīto**) and two in Tocharian A (*lokit* and *mäśkit*).

It seems that TchB *-ito*, A *-it* is the result of some kind of reanalysis, since the vowel *-i-* cannot synchronically belong to the stem (cf. *laukaññe* 'for a long time' /laukə́ññe/). Pinault (2015: 176) has recently dealt with the origin of this suffix. He reconstructs PTch **-əy-tå*, which in turn may have had two possible Indo-European sources: (1) **-əy-* was part of the stem and PTch **-tå* is from the "individualising" suffix PIE **-teh₂ > *-tā*; (2) PTch **-əytå* reflects a second compound member PIE **-Hi-t-eh₂ > *-itā*, from the verbal root **h₁ei̯-* 'to go' (cf. the type of Lat. *comes, comitis* 'companion', and Hom. Gk. περικτίτης 'neighbor' etc.).[175]

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[173] On TchB *katk-*, A *kātk-* 'to be glad', see DTB: 159 and Hackstein (2002: 8).

[174] It is still matter of debate if the paradigm of TchB *kawa-* started out as a denominative to *kāwo*. For discussions, see Hilmarsson (1991b: 80-1) and Malzahn (2010: 563).

[175] See Leukart (1994: 66ff.). Not with Benveniste (1942-1945: 49), who analyses TchB *laukito*, A *lokit* a loanword from the adjective Skt. *laukika-* 'mundane, profane'.

Pinault seems to favour the latter hypothesis, so that the meaning of PTch *lawk-əytå would have been 'coming from afar'. Then, the original value of the second member *-əytå would have become obsolete and it would have been employed in the derivation of few other nouns. However, whenever we assume that PIE *i̯ palatalise neither velar nor labiovelar stops in Tocharian,[176] I would expect PTch *lawkətå > TchB **laukato, A **laukät as the outcome of a (virtual) compound *lou̯k-Hi-teh₂.[177]

Following the first hypothesis, one could posit an abstract noun *lawkəy at the origin of TchB laukito, as suggested by Pinault himself.[178] If so, the original suffix was *-tå, which would have been reanalysed as *-əytå via resegmentation of *lawkəy-tå as *lawk-əytå.[179] The only problem with this analysis is that final TchB -i is usually matched by TchA -e in these abstract nouns (cf. TchB telki 'sacrifice' : A talke 'id.'; leki 'bed' : A lake 'id'. etc.). As a consequence, one should assume that the expected **loket became lokit under the influence of Tocharian B. But this sounds speculative. A last hypothesis is to reconstruct a derivative PTch *lawk(ə)yæ 'far; distance' (cf. TchB werpi-śke, A warpiśke 'little garden', based on TchB werpye*, A warpi 'garden', etc.) from which an agent noun in *-tå is derived. This reconstructed noun is expected to have evolved into TchB laukīto, A lokit. Be that as it may, TchB laukīto, A lokit is clearly related to the adverb TchB lauke, A lok 'far, remote, away'.

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[176] Word-initially, PIE *i̯ (*Hi̯) evolved into PTch *yə > TchA yä-, B yə-, while it becomes PTch *-ə- > TchA -ä-, B -ə- in internal position. The palatalising effect of PIE *i̯ is debated. Palatalisation seems to be regular in front of *-l- and dental stops, cf. *li̯mṇ 'bay, like' > PTch *ĺəmə > TchA lyäm, B lyam 'lake'; PIE *-nti (3pl.) > PTch *-ñcə > TchA -ñc. It is clear that it does not palatalise labiovelars (e.g. *kʷi̯-so- 'who' > PTch *kwəsæ > TchB kᵤse, A kus; PIE *dṷitó- 'second' > PTch *ẇətæ > TchA wät, B wate 'id.'). Pinault (2008: 433) assumes that PIE *i̯ did not palatalise labials, velars, labiovelars, and *s.

[177] On the other hand, if laryngeal metathesis must be reconstructed, I would expect that Pre-PTch *ī in *lou̯k-Hi-teh₂ >*lou̯k-iHteh₂ > *lowkītā would have palatalised the internal velar.

[178] One would be tempted to say that this *lauki actually derived from the verbal a-root TchB ləwka-, on which see Adams (2012) and Peyrot (2013: 811). Cf. further the adverb laukar 'afar' (AS6A a5, a6, b7).

[179] A similar type of reanalysis also characterised some Ancient Greek nouns in -ῑτης. On several occasions, Van Windekens (1942: 295, 1944: 132, 1976: 176 and 266) equated this suffix with TchB -ito, A -it as both reflecting PIE *-īteh₂ (cf. also Hirt 1912, 1927: 228). However, the Greek suffix can be easily explained as an indigenous formation, through the same reanalysis that hypothetically characterised PTch *-itå, too. Indeed, as pointed out by Redard (1949: 11ff.), partially followed by Leukart (1994: 187ff.), Gk. -ῑτης is a back-formation from πολῑ́της 'citizen' (regularly from πόλῑς 'city'), on the basis of which the -ῑ- has been reanalysed as part of the suffix and then generalised to form other common and proper nouns (e.g. Hom. Gk. ὁδῑ́της 'traveller' ← ὁδός 'road'; Gk. ὁπλῑ́της 'hoplites' ← ὅπλον 'tool, weapon'; Att. Gk. ἐρημῑ́της 'hermit' ← ἔρημος 'lonely, solitary'; Hom. Gk. Θερσῑ́της 'Thersites', the antihero of the Iliad). This new suffix became increasingly productive in the history of Greek (with its feminine counterpart as -ῑτις), especially from the Hellenistic period on, when it started to form technical terms, as well as ethnic designations and Biblical tribal names.

The second Tocharian B noun built with the suffix -(i)to is TchB *nekīto**. As we have already seen, this noun is a hapax legomenon and its precise meaning cannot be identified, due to the broken context where it is attested. However, if TchB -(i)to has a sort of agentive value and *nekīta naśi* in B530 b4 is a *figura etymologica*, then TchB *nekīto** should mean '± destroyer' as a form derived from the subjunctive stem of TchB *nǝk-* 'to destroy, lose' (perhaps from an abstract **neki* 'distruction').

So far, we have seen that the suffix TchB -ito, A -it must be historically segmented as TchB -i-to (obl.sg. -i-ta), A -i-t. This should be traced back to the agentive suffix PIE *-teh₂* of the type Lat. *nauta* 'sailor', Myc. *e-re-ta* ἐρέτας 'rower', Hom. Gk. ἱππότᾰ 'horseman', etc. (Pinault 2015: 176; Adams 2015: 180). The reconstruction of the obl.sg. *-ta* for this type of derivatives allows us to consider other agent nouns which seem to have been formed with the same suffix in Proto-Tocharian. The nouns in question are: (1) TchB *käryorttau*, A *kuryart* 'merchant'; (2) TchB *olyitau* 'boatman'; (3) TchB *pälkostau* 'spy'; (4) TchB **kamarta-* 'ruler' (cf. *kamartāññe* 'rulership'), A *kākmart* 'ruler, master'.[180]

Pinault (2015: 161-2) claims that the suffix -tau was abstracted from the noun TchB *käryorttau* 'merchant', which is the most prominent and attested member of this class of derivatives. He analyses TchB *käryorttau* as a compound of TchB *karyor°*, A *kuryar°* 'trade' and *°ttau*, an agent noun based on the verbal root PTch **tǝtta-* 'to put'. The reason why he reconstructs a compound is that TchB *käryorttau* is very often spelled with geminated -tt-. According to Pinault (2015: 162), once "the original meaning of the root of the second member vanishes", the formation was reanalysed, and the suffix was abstracted. I cannot agree with this analysis. Indeed, the gemination of TchB -t- in the cluster -rt- > -rtt- is very frequent, as the following examples show: *warto ~ wartto* 'forest'; *kartse ~ karttse* 'good'; *akarte ~ akartte* 'near'; gen.sg. *udāvarttäntse* (← Skt. *udāvarta-* 'disease, ileus'); *kerte ~ kertte* 'sword'; *kamartāññe ~ kamarttāññe* 'rulership'; *kamarttīke ~ kamartīke* 'ruler', etc.[181] Furthermore, TchA *kuryart*, with a stem *kuryartā-*, points to the reconstruction of a noun with nom.sg. **kʷryǝr-tå* obl.sg. **kʷryǝr-ta* for Proto-Tocharian, which would also explain the derivative TchB *käryotaññe*, name of a metre. The same analysis can also account for other nouns from this class, like TchB *olyita-u* 'boatman' from *olyi* (obl.) 'boat". In my view, the final -u must have been taken over from other *nomina agentis*, like *yenme_u* 'gatekeeper' (from *yenme* 'portal'), TchB *yotkolau* 'controller, director [of a monastery attendants]' (from **yotkol* 'order'), TchB *wetā_u* 'warrior', A *waco* (from TchB *weta*, A *wac* 'battle'),[182] and

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[180] TchB **kamarta-*, A *kākmart* 'ruler' is borrowed from Bactrian **καμιρδιγο*, a suffixed form of καμιρδο 'head, chief (god)'. See the discussion in Pinault (2002: 262f.). On TchB *mlyokotau*, a kind of seed for lamp (?), see Ching (2014: 45).

[181] Example of non-geminated -t- can be found in AS13I b2 *käryortantäṃ*, IT8 b1 *käryortantäṃne*, NS73 a3 *käryortau*, B239 b3 *käryortantäṃys*, and frequently in the derived *käryorttaññe(ne)*, name of a metre (cf. IT887 a2; AS17I a5; NS58 b3; B350 b3; B121 a4).

[182] The formation of TchB *saṃtkīnau*, A *sāṃtkenu* 'physician, doctor' has not been understood yet, since we would rather expect TchB -itau, A -it. It is evidently derived from TchB *sāṃtke*, A *sāṃtäk* 'medicine' (← Middle Indic intermediary of Skt. *śāntaka-* 'allaying'), but the two Tocharian languages do not match phonologically and the suffix TchB -(i)nau, A -(e)nu is not attested elsewhere.

from the adjectival type TchB *tallā̆ᵤ*, A *tālo* 'miserable', TchB *maiyyā̆ᵤ* 'powerful, strong' (cf. Van Windekens 1979: 98f.). These formations contain the outcome of the PIE possessive suffix **-u̯ent-*.

To conclude, we have seen that Tocharian inherited from Proto-Indo-European the agentive suffix **-teh₂* of the type Gk. ναύτης 'sailor'. The Proto-Tocharian outcome of this suffix was used to derive agent nouns from nominal bases. The paradigm of the singular was nom.sg. **-tå*, obl.sg. **-ta*. This paradigm has been maintained in isolated words, like TchB *laukīto*, A *lokit* (stem TchA *lokitā-*) 'stranger', TchB *nekīto** (obl.sg. *nekīta*) '±destroyer', TchA *kuryart* 'merchant'. In Tocharian B, there is a general tendency to turn all these nouns into *wänt*-stems, of which the majority can be traced back to the possessive formations in **-u̯ent-*. This suffix formed denominal adjectives but, already in Proto-Tocharian, it started to be reanalysed as an agentive suffix, cf. PTch *wæta 'battle' → *wætaw 'combating, warlike' → TchB *wetā̆ᵤ* 'soldier, warrior' (cf. TchA *waco*). Tocharian B has therefore started to level all the original formations in **-tå*| **-ta* with the existing *wänt*-stems. The result of this process is the attested conglomerate suffix **-taw*, which regularly follows the *nt*-inflection.

TchB *suwo* 'pig' and TchB *luwo*, A *lu* 'animal'

Two faunal words can be ranged under the *kantwo*-type: TchB *suwo* 'pig',[183] of unknown gender, and TchB *luwo*, A *lu* 'animal', an alternating noun with the rare plural morpheme TchB *-sa*.

The PIE source of the first term is **suH-* 'pig, swine' (> Lat. *sūs*, Gk. ὗς, YAv. *hū-*, etc.), but the Tocharian paradigm is problematic since from PIE *suH-s we would expect a nom.sg. *suwa, and not the attested *suwo* (B549 a6, cf. Katz 1997: 79f.). For this reason, usually a protoform enlarged with a nasal suffix is reconstructed, i.e. PIE **suHōn/*suHn-* (Winter 1965: 192; Hilmarsson 1988: 507f.; DTB: 763). Peters (1991), Kim (2009), and Malzahn (2011) are of a different opinion: they all claim that nom.sg. *suHs, acc.sg. *suHm yielded nom.sg. *suwǎs, obl.sg. *suwǎm in a Pre-Proto-Tocharian period. The expected paradigm should have final *-a* in both the nominative and the oblique singular. In order to explain the nom.sg. *-o*, Peters (1991: 243) argues that an analogical replacement of **-ǎs* by **-ās* affected the nominative singular (after **kn̥tu̯ās*). On the other hand, Malzahn puts forward a different scenario, postulating a sound law pre-Ptoch. **-ǎs* > PTch. **-å* > TchB *-o*, so that the nom.sg. *suwo* would directly mirror PIE *suHs.

Before commenting on this sound law, let us introduce the paradigm of TchB *luwo* 'animal', clarifying its etymology and derivation. So far, two different etymological proposals have been put forward:[184] (1) TchB *luwo* is from PIE **luHs-* '± louse' (cf. OHG *lūs*,

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[183] A plural form of TchB *suwo* is perhaps to be restored in THT2071 4 ///*tem̐ yiknesa ṣkas ssuw*/// "In this manner six pigs (?)" (Ching 2010: 307).

[184] The two etymologies were first proposed by Pedersen (1941: 72) and Van Windekens (1976: 268) respectively, but the formulations presented here are from Hilmarsson (1988: 155) and Adams (DTB: 607; differently in Adams 1988: 129).

OIcel. *lús*, OE *lows*; MW *lleu*, MBret. *lou* [collective], etc.); (2) TchB *luwo* is to be linked with the verbal root PIE **leu̯H-* 'to separate, cut off' (PSl. **lôvъ* 'hunting' (?), Lat. *luō* 'to suffer' (?), Skt. *lunā́ti* 'cuts off') or **leu̯-* 'beschmutzen' (LIV²: 414, cf. also Gk. λῦμα 'filth, garbage' < **lus-mn*).[185] From a formal point of view, both Germanic and Tocharian point to PIE **luHs-*, which can be interpreted as a neuter *s*-stem built on the zero grade of the root PIE **leu̯H-*.

The reconstruction of a neuter *s*-stem for the Tocharian word is suggested by the plural formation TchB *lwāsa*, which displays an "*s*-Erweiterung". This plural morpheme is extremely rare, since it is further attested in *piltāsa* 'leaves' (TEB §159) and *ḷyyāsa* 'limbs' only.[186] Therefore, there is no doubt that it is an archaism, not a secondary "*s*-Erweiterung".[187]

For the same reason, I cannot agree with Adams (DTB: 607) in arguing that the Tocharian B plural *-sa* in *luwo* "may result from a cross of this etymon with a PTch **tsäuwā* 'animal', reflecting PIE **dʰéuhₓōs* 'animal'". This hypothesis has to cope with two problems: on the one hand, no other Indo-European language points to a collective *s*-stem **dʰéuhₓōs*, but rather to a thematic formation (e.g. Goth. *dius* 'wild animal', OE *deor* 'id.' are from PGerm. **deuza-* 'beast' < **dʰeu̯só-*, see Kroonen 2013: 94-5); on the other hand, we have no Tocharian continuants of Adams' **tsäuwā* 'animal'. I therefore believe one must reconstruct a PIE *s*-stem for both the singular and the plural inflection of TchB *luwo*, A *lu*.

We can now finally discuss the sound law proposed by Malzahn (2011: 94f.). As mentioned above, she believes that Pre-PTch. **-ās* and **-ăs* resulted in PTch. **-å* > TchB *-o*. This sound law is aimed at explaining the singular paradigm of both *suwo* and *luwo*. But this is not convincing. While nom.sg. **suH-s* (> **suwăs*), acc.sg. **suH-m* (> **suwăm*) could theoretically underlie nom.sg. *suwo*, obl.sg. *suwa*, a sound law **-ăs* > PTch. **-å* could not account for the singular paradigm of *luwo*, because it comes from a neuter *s*-stem, with both nominative and accusative reconstructed as **luHs* (> **luwăs*). In accordance with Malzahn's sound law, we would expect TchB *luwo* both in the nominative and in the oblique singular and further reconstruct analogy after obl.sg. *suwa* to explain the obl.sg. *luwa*. Since this sound law does not solve all problems linked to the paradigm of TchB *suwo* and *luwo* and, above all, it is based on these two nouns only, I cannot accept it.[188]

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[185] Adams (DTB: 607) thinks that Gk. λέων 'lion' can be interpreted as a nominal derivative from PIE **leu̯H-*, i.e. **leu̯H-ōn* 'the hunter, predator'. However, several details are still unclear, and scholars still prefer a non-Indo-European source for Gk. λέων 'lion', probably from Semitic (see Beekes 2010: 854; GEW: II, 113).

[186] Winter (2003: 117f.) reconstructs a nom.sg. *ḷyiyo**, obl.sg. *ḷyiya**. For an etymological proposal, see Van Windekens (1976: 567). For further details on the plural form, see Pinault (2008: 467), Schmidt (2008: 326f.), Malzahn (2010: 851).

[187] The corresponding Tocharian A forms show a different development, since the plural of *pält* 'leaf' is *pältwā*, and the plural of *lu* 'animal' is *lwā*. See Winter (1965: 122f.) for further details.

[188] Malzahn (2011) claims that through the sound law **-ăs > o* we would be able to explain some members of the *oko*-type (nom.obl.sg. *-o*, nom.obl.pl. *-onta*) as the descendants of an inflectional type in PIE **-h₂s-*, cognate with the so-called Greek κρέας-type. Meissner (2005: 122f.) clarifies that this type is a recessive category in Greek (with less than thirty nouns), which seems to be the

We are left with Winter's PIE *suH-$ōn$ (1965: 192), which would yield the attested TchB *suwo* quite regularly. Since analogical influence between the Proto-Tocharian paradigms of *suwo* 'pig' and *luwo* 'animal' may have occurred, one may wonder whether the -*o* in TchB *luwo* would have been taken from the word for 'pig' (Hilmarsson 1988). There is, however, a problem in the reconstruction of PIE *suH-$ōn$ itself. Indeed, no other IE language points to such a protoform, and this isolation within the Indo-European domain is suspicious.

As a consequence, I believe Tocharian inherited PIE *suH- 'pig' and *$luHs$- '±louse' directly. For a certain stage, a paradigm with an undifferentiated sg. *$səwa$ and *$ləwa$ is to be reconstructed. Then, a secondary distinction took place between the nominative and the oblique through the introduction of the forms *$səwå$ and *$ləwå$ in the nominative. This final PTch *-$å$ > TchB -*o* has plausibly been introduced after other faunal terms that synchronically belong to either the *okso*- or the *arṣāklo*-type (both with a late obl.sg. -*ai* cf. §3.7.2.5), like *okso* 'ox, cow', *arṣāklo* 'snake', *kercapo* 'donkey', *mewiyo* 'tiger', *oṅkolmo* 'elephant', *kraṅko* 'cock', etc. As we will see, the singular paradigm of these nouns can be reconstructed as nom. *-$å$, obl. *-a for a certain stage of Proto-Tocharian (§3.7.2.4). As a consequence, both the singular inflection and the semantics of these nouns have favoured the generalisation of the ending nom.sg. *-$å$ to the otherwise undifferentiated singular paradigm of PTch *$səwa$ and *$ləwa$.[189] On the other hand, the plural PIE *$luHs$-h_2 regularly yields the attested TchB pl. *lwāsa*, while, in Tocharian A, it was expected to develop to *$lwās$ (nom. = obl.). This isolated plural form was soon remade in the attested plural *lwā*.[190]

There are two other nouns that have the rare plural TchB -*sa*, i.e. *piltāsa* 'leaves, petals' and *ḷyyāsa* 'limbs' (see also the next section). Winter (1962: 112) and Schmidt (1982: 363) suggests that the paradigm of the word for 'leaf, petal' was parallel to TchB *luwo*, positing a nom.sg. TchB *pilto**. The same reconstruction has been recently advocated by Malzahn (2011: 86-7 fn.10). On the other hand, Krause & Thomas (TEB §159.2), Adams (DTB: 415), and Pinault (2008: 205) give a singular *pilta* (nom.=obl.). I believe that only the latter paradigm is correct. Indeed, the form *pilta*, attested in B622 b4 /// *uppālṣe pilta nest* /// "you are a lotus petal", can hardly be interpreted as something other than a nominative. This makes the paradigm of TchB *pilta* and TchB *luwo* synchronically different. However, since the nom.sg. -*o* in *luwo* has been explained as secondary, their paradigms were probably identical at an unattested stage of Tocharian. This allows us to reconstruct an old *s*-stem for the antecedent of TchB *pilta*: the singular paradigm goes back to PIE *-Hs, while the plural paradigm is from PIE *-Hs-h_2. The word may come either from *b^heltH- (DTB: 415) or *$pelth_2$- (Pinault 2008: 205).

Indo-European language that maintained this inflectional type best (together with the Indo-Iranian group). On the origin and the evolution of the *oko*-type, which is quite different, in my view, see §3.8.2.1.

[189] Probably, TchB *suwo* retained a singular *suwa* and did not develop an obl.sg. **$suwai$ because of its formal resemblance with TchB *luwo*, obl. *luwa*.

[190] A form TchB *luwāñ* seems attested in IT395 a3, which is a very fragmented document. Formally, this *luwāñ* might be interpreted as a secondary nominative plural of *luwo*.

TchB *āyo*, A *āy* 'bone'

There is just one other alternating noun that has nom.sg. -*o*, obl.sg. -*a*: TchB *āyo*, A *āy* 'bone'. In the previous edition of his dictionary, Adams (1999: 45) provides a list of variants for the singular paradigm of this noun in Tocharian B: nom.sg. *āy* ~ *āyo*, obl.sg. *āy* ~ *āya*, with (synchronically) suppletive plural *āsta*. Pinault (2008: 333) argues that the singular is *āy* < **ayə,* and further analyses *āyo* as a poetic form and *āya* as a new plural formation. However, as correctly pointed out by Peyrot (2008: 111-112), a hypothetical TchB †*āy* is never attested in the entire corpus of Tocharian B. The singular forms are the following (Peyrot 2008: 111):

(1) nom. sg. in W20 b3, *oṅkolmaiññe āyo* [*ay*] ·*īle* "elephant's bone is to be ...ed"[191]. Unfortunately, the correct reading of the line is hindered by ink stains from another leaf that was laid over it. However, Peyrot is certainly right in reading the final part of a gerundive at the end of the line. This gerundive is inflected as a nom.sg. in agreement with *āyo* 'bone'. As for the internal coherence of the text, an elephant bone that must be treated in some way would fit well in a medical context;

(2) obl. sg. in AS4A b1 *tsirauwñeṣṣe kauṣn āya ompalskoṣṣe mrestīwe pakṣäṃ* "He breaks the bone of energy [and] he cooks the marrow of meditation" (cf. Meunier 2015: 169; the same portion of text is in NS27 a2). The fact that TchB *āya* must be analysed as a singular is confirmed by the agreement with a modifier inflected as a masculine singular (*tsirauwñeṣṣe* 'pertaining to energy').[192] Furthermore, the derived adjective *ayāṣṣe* /ayáṣṣe/ corroborates this analysis, since it is regularly based on the oblique singular (Peyrot 2008: 111; differently Pinault 2008: 333).

Other fragments where one could read independent sequences of *āyo* or *āya* are broken or severely damaged, especially at the end of the line, where unfortunately these words are mostly attested. For many of them, the restoration of the frequent noun TchB *āyor* 'gift' is preferable (instead of TchB *āyo* 'bone'). Other probable, but not certain, readings of TchB *āyo* are in IT826 b5 and THT1324.b a2. The former is a small fragment, but it seems to deal with some medical or magical practice; in the latter, the reading TchB *āyo* may be supported by the attestation of the plural *āsta* 'bones' in line b1.

Dealing with the paradigm of this word, Hartmann (2013: 267-8) proposes a new interpretation that seems to give credit to the variant forms given by Adams (1999:4 5). Once having introduced and commented on Peyrot's analysis about the singular

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[191] The reading follows Peyrot. Filliozat's *oṅko*(*lma*)*ññe āy* (1948: 72) is based on an inaccurate facsimile by Hoernle (1902), as Filliozat himself wrote (p. 64). The manuscript clearly reads *oṅkolmaiññe* for expected *oṅkolmaññe*, with *ai* for *a* probably due to the following palatal consonant (Peyrot 2008: 54).

[192] Cf. the translation of the passage by Georges-Jean Pinault apud CETOM, where *āya* is translated as a plural form.

paradigm, Hartmann argues that the annexation of TchB *āyo* to the *kantwo*-type is probable, but not entirely convincing. Crucial in his argumentation is the hypothetical attestation of TchB *ay* in B284 b2 (arch.), which he interprets as an oblique singular of *āyo*: *apsāl śakattai ṣäp ay ṣesa pyākälyñe* "striking with sword, club together with bone" (translation by Adams 1999: 619). Since the obl.sg. *āya* is attested in a classical document with some late forms, while the alleged obl.sg. *ay* occurs in an archaic one, Hartmann concludes that TchB *āy* is the old and regular form. In the history of Tocharian B, a new nom. sg. *āyo* would then have resulted through reanalysis of a form with *o*-mobile[193] and, later, the obl. sg. *āya* would have been analogically created after the paradigm of TchB *luwo* 'animal'.

I believe there are flaws in this theory. If, on the one hand, it is true that the spelling *ay* might be an archaic writing variant of TchB *āy* /áy/, the syntax of the sentence in B284 b2 is very strange and Adams' translation is puzzling. From a morphosyntactic perspective, one should notice that the verb TchB *pyak-* is never combined with *ṣesa* and that the postposition *ṣesa* is usually constructed with a nominal in the comitative. A form *ayämpa** (or the like) would therefore be expected. I am further hesitant to assume that a new singular paradigm nom. *āyo*, obl. *āya* originates after the creation of the new nom.sg. *āyo* from **ayə* with *o*-mobile. Indeed, the Tocharian B phenomenon named "bewegliches *o*" usually presupposes that an original final *-ä* /-ə/ is replaced by final *-o* in metrical (mostly archaic) texts in *pāda*- or colon-final position (Pinault 2008: 404f.; Malzahn 2012a). To my knowledge, the variant with *o*-mobile has never been reinterpreted as a new inflected form replacing the original one with final *-ä*. Perhaps the only exception could be the plural of the imperative active, where the variant with *-o* is not confined to the usual contexts (Malzahn 2010: 42). Alternatively, one might say that TchB *āyo* is itself an example of *o*-mobile of a regular *āyä** (as per Pinault 2008: 333). However, as noticed above, the only clear occurrence of TchB *āyo* is from a non-metrical text, i.e. a collection of medical recipes.

To sum up, the correct paradigm of the word for 'bone' in Tocharian B is: nom.sg. *āyo*, obl.sg. *āya*, nom.obl.pl. (suppletive) *āsta*.[194] The Tocharian A paradigm is: nom.obl.sg. *āy*, nom.obl.pl. *āyäntu*.

As far as the etymology of the term is concerned, one would like to derive the Tocharian noun directly from the familiar PIE word for 'bone', namely PIE **h₂óst-* / **h₂ést-* (or **h₃ést-*). The plural TchB *āsta* has evolved quite regularly. Pinault (2008: 428) outlines the following development: PIE **h₂óst-h₂* > **œsta* > PTch **asta* (through *a*-umlaut) > TchB *āsta*.[195]

On the other hand, the origin of the singular TchB *āyo* (obl.sg. *āya*) and TchA *āy* (pl. *āyäntu*) is more difficult. Hartmann (2013: 448-453) and Adams (DTB: 48-50) have recently

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[193] On the insertion of *-o* in metrical texts, see Malzahn (2012a).

[194] See also Adams (DTB: 48ff.) and Malzahn (2011: 99).

[195] Not with Van Windekens (1976: 172-3) a loanword from Khot. *āstaa-* 'bone' < **astaka-*, with pl. *āste*, cf. Isebaert (1980: 190).

summarised and commented on the previous etymological attempts. Van Windekens'
derivation from PIE *$h_2éi̯u$- 'life-force' (cf. Skt. $\acute{a}yu$-) is phonologically fine, but semantically
difficult (1976: 173; cf. DTB: 49-50). Hilmarsson's *$h_2ei̯d$-i-h_2 'swelling' (cf. Arm. ayt 'cheek')
is also difficult, from both a morphological and a semantic point of view.

Katz (1997: 73-7) takes *ay as the regular outcome of PIE *$h_2ést$- > *ast > *as > PTch *ay
by sound law of Pre-PTch *-s > -y in monosyllables. Such a sound law, however, has no
clear parallels in Tocharian (see §3.5.1.2) and the word TchB †$\bar{a}y$ no longer exists.

As a matter of fact, the situation of this word is quite peculiar, because it is an accented
monosyllable. The expected outcome of PIE *$h_2ést$ would have been PTch *a after regular
loss of final consonants.[196] One may wonder whether this PTch *a 'bone' (?) was reshaped
in *$ay\mathring{a}$ (obl.sg. *aya) after the paradigm of the word for 'member', TchB $l̦yiyo$* /ĺə́yo/, pl.
$l̦yyāsa$ /ĺyása/ (TchA pl. $l̦yiyā$ ~ $l̦yā$). However, this noun is not attested in the singular,
neither in Tocharian B, nor in Tocharian A and its etymology is equally unknown.[197]

TchB *maiyya, -yo* 'force, strength'

The last substantive ranged under the *kantwo*-type is the abstract noun TchB *maiyya ~ -yo*
'force, strength'. There are some issues about the derivation and the alternation -o ~ -a in
the nominative singular of this noun.

From an etymological point of view, the word must be linked to the PIE root *$mei(H)$-
'± soft, little' (cf. PGerm. *$maiwa$- 'slim, narrow', and further Lat. $mītis$ 'soft'), in turn
probably derived from PIE *meh_1- 'to measure' (cf. further DTB: 508). TchB *maiyya* is linked
to the adjective TchB *maiwe* 'young', which Adams (DTB: 509) traced back to PIE *$moHi$-

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[196] Adams (DTB: 49) suggests that this PTch *a was perceived as overly short by Tocharian speakers
and it was extended in some way, perhaps by the outcome of the PIE suffix *-$i̯o$-/-$i̯eh_2$-, also attested
in other body-part terms in some other Indo-European languages (e.g. Skt. $\bar{a}sya$- 'mouth' alongside
$\bar{a}s$- 'id.').

[197] For the identification of the word, see Pinault (2008: 146-7) with references. Blažek (2012: 16)
has connected TchB $l̦yiyo$* with Hitt. $ḫaliie/a$-^{zi} 'to kneel down', which has been traced back to PIE
*$h_2oi̯$-/ *h_2l-i- by Kloekhorst (2008: 273f.) (cf. the reduplicated $halihla/i$- 'to genuflect' <
*h_2li-$h_2l(o)i$-). For Tocharian, Blažek reconstructs *h_2li-h_2i-, without clarifying how this protoform
could have evolved into TchB $l̦yiyo$*. Witczak (2017) recently reconstructs an *s*-stem noun referring
to fleshy parts of the body, which he derives from the PIE root *leh_1- '±smooth' (cf. Gk. λεῖος 'level,
smooth', Lat. $lēvis$ 'id.' < *leh_1i-$u̯$- (?), Gk. λίς 'smooth' < *lih_1-t-). According to him, evidence for this
s-stem would come from OE $līra$ 'muscle, soft part of the body', MLG $liese$ 'thin skin', Lith. $líesas$
'lean, thin', Latv. $liêss$ 'id.', and Hitt. $lēši, līšši$ 'liver'. If Proto-Indo-European had such a neuter *s*-stem
noun, a paradigm sg. *$l(e)h_1i$-s, pl. *$l(e)h_1i$-sh_2 'soft part of the body' would have evolved in Tocharian
into sg. *ĺəy, pl. *ĺəysa (or sg. *ĺæy, pl. *ĺæysa). Then, this paradigm may have been remade to sg.
*ĺə$y\mathring{a}$| -a, pl. *ĺə$yasa$ after other body-part terms that belong to the *kantwo*-type. Otherwise, one may
link TchB $l̦yiyo$* with the PIE root *$lei̯$- (cf. Goth. $liþus$ 'member, body part', ON $liðr$ 'joint', OHG lid
'joint, articulation', Du. lid 'id.' < *$liþu$-, ON $limr$ 'limb', E $limb$ 'id.' < *$limu$-, Kroonen 2013: 338 and
340).

u̯o-. He reconstructs an old abstract in *-i̯eh₂* derived from this adjective, which would have evolved into our TchB *maiyya*.[198]

However, I am not aware of other abstract nouns formed with (the outcome of) the suffix *-i̯eh₂* in Tocharian.[199] Furthermore, since I expect *-eh₂* to have yielded TchB *-o* (see §4.3.4.4 and above), Adams' proposal implies that TchB *maiyyo* is to be considered as the older variant. However, on the basis of the textual distribution of the variants, Peyrot (2003: 62ff. and 2008: 99ff.) demonstrated that many substantives of the *wertsiya*-type (nom. sg. *-ʸa ~ -ʸo*, obl. sg. *-ʸai*) show a general trend to shift to a subtype with nom.sg. *-o* between the classical and the late stage, while they consistently attest a nom.sg. *-a* in archaic documents. I have therefore checked the occurrences of TchB *maiyyo* in the texts. They are all from classical and late texts, thus confirming Peyrot's distribution of the variants: *maiyyo* (NS103 a1 [class.]., B21 b5 [class.-late], B231 b5 [class.-late], B278 b2 [class.], B371 b2 [class.], THT1131.i [late?]); (*mai*)*yyo* (IT27 a1 [class.]); *mai*(*yy*)*o* (B17 b8 [class.-late]); *maiyo* (AS8B a4 [class.-late]). I therefore consider the nom.sg. *maiyya* as the archaic variant. This cannot be the outcome of a virtual PIE *moh₁i-u-i̯eh₂*.

In my opinion, the best option is to consider TchB *maiyya* a substantivised adjective of the original feminine form of TchB *maiwe* 'young'. Indeed, after the generalisation of the feminine singular paradigm in *-ʸa*(-) in the thematic adjectival inflection (cf. nom.sg.m. *ratre* 'red' < *rətrǽ* < *h₁rudʰro-*, nom.sg.f. *rtarya*, not *ratro* < *rətrå* <*h₁rudʰréh₂*; cf. Lat. *ruber*, *rubra* 'red', Gk. ἐρυθρός, ἐρυθρᾱ́ 'id.'), the feminine form of TchB *maiwe* < PTch *mæywæ* should have been TchB *maiyya* < PTch *mæyẃa*. Moreover, TchB *maiwe* does not attest a feminine inflection. This kind of development strongly resembles the one of the abstract nouns TchB *emalya* and TchA *omlyi* 'heat', which, from a formal point of view, seem to be the feminine counterparts of the adjectives TchB *emalle* and TchA *omäl* 'hot, warm' (again, with no feminine inflection attested). In addition, this analysis may improve the historical interpretation of the plural paradigm of TchB *maiyya*. Adams (DTB: 508) reports the following plural forms: nom.pl. *maiyyāñ*, obl.pl. *maiyyaṃ ~ maiyyana*. The suppletive plural form in *-ana* is problematic, because this plural marker is exclusively confined to nouns of the *aśiya*-type (§3.5.2). I checked the attestations of the plural forms and my results are given below:

(1) IT96 a5 *snai-maiyyañ*; IT36 b1 // *maiyyañ*; NS56 b2 *śak-maiyyaṃ*; B211 a2 *śak-maiyyaṃ*; B303.d. b1 // *maiyyaṃ*; B621 b3 *maiyyaṃ*;

(2) B31 a1-2 (*mai*)*yyana* (cf. Sieg & Siegling 1983: 67-8); NS49A b5 *maiyyana*; B533b4 *mai*(*yyana*) (rest. by Claus-Peter Schmidt apud Hartmann 2013: 237).

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[198] An older variant *meyya* is attested in archaic texts (e.g. B248 a1; B274 b1-b2). See Peyrot (2008: 58f.) and Pinault (2008: 275).

[199] According to Adams, TchB *peñiya ~ -o*, A *pañi* 'splendour' may also go back to an abstract in *-i̯eh₂*. On this noun, see §3.7.3.3.

All these documents are drafted in classical Tocharian B, with archaic forms in B211 and late forms in NS56. I was not able to find any nom.pl. †*maiyyāñ*. An important thing to be noticed is that the plural *maiyyana* is always attested as an independent word, while the nom.pl. *maiyyañ* and the obl.pl. *maiyyaṃ* are for the most found in composition with *snai* 'without' (*snai-maiyyañ* 'without powers' in IT96), or *śak* 'ten' (*śak-maiyyaṃ* 'provided with ten powers' in NS56 and B211), an epithet of the Buddha (Pinault 2008: 564). Since the forms *maiyyañ* in IT36 and *maiyyaṃ* in B303.d. are the first discernible words at the beginning of a broken line, we cannot tell whether they were in composition or not. I therefore believe that the original plural form of *maiyya* was *maiyyana* (nom. = obl., cf. TEB §163 and Hartmann 2013: 237), as attesting the common ending of the feminine adjectival inflection. Soon after, the plural -*na* started to be perceived as incorrect, because this ending usually marks feminine words with female referents in the noun inflection. As a consequence, TchB *maiyya* acquired a new plural in -*añ*| -*aṃ*, as the attestation in B621 b3 seems to confirm, where an obl.pl. *maiyyaṃ* cannot be part of a compound.

A last thing that still needs to be explained is the obl.sg. -*a*. A possibility is that an original obl.sg. **maiyyai* was dissimilated in *maiyya*. However, the obl.sg. -*a* is attested since the archaic stage, where an obl.sg. ***meyyai* would have hardly evolved into *meyya* after dissimilation.[200] Now, since we have traced TchB *maiyya* back to an old feminine adjective, one may wonder whether the obl.sg. -*a* reflects the maintenance of the original obl.sg. ending of the feminine adjectives. Indeed, at a certain pre-stage of Tocharian, the singular paradigm of the feminine adjectives did not differentiate the nominative from the oblique, since they both ended in **-ʸa* (cf. §4.3.3.3). This fits the analysis of *maiyya* as an old feminine adjective nicely.[201]

3.7.1.3. Summary

In this section, I have analysed a group of nouns with nom.sg. -*o*, obl.sg. -*a*. I have pointed out that many of its members can be traced back to the PIE hysterodynamic type in **-(e)h₂*. Furthermore, we have seen that there is no reason to explain the nom.sg. TchB -*o* as the outcome of either a sigmatic nom.sg. PIE **-eh₂s* or a plural formation **-eh₂-es* (*vel sim.*).

The discussion can be summarised as follows. The stock of the *kantwo*-type words is made up of: (1) words with certain etymologies and exact Indo-European correspondences that are the outcome of a PIE type in **-(e)h₂* of the hysterodynamic type (TchB *kantwo*, A *käntu* 'tongue'); (2) words with certain etymologies and exact Indo-European correspondences that may have inherited (or developed) an hysterodynamic inflection as well (TchB *karyo** 'viscera', A *kri* 'will, desire'); (3) words with probable etymologies with no precise Indo-European correspondences that can go back to a PIE type in **-eh₂* or **-h₂*

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[200] Cf. also Malzahn (2011: 93 fn. 25).

[201] A last possibility is to interpret TchB *maiyya* as a *vṛkí̄*-derivative of *maiwe* (see §3.7.3.). From a semantic point of view, this reconstruction works fine, because the original meaning of PTch **mæyẃa* would have been 'pertaining to the youth' and then 'force, strength'. If so, however, the deviating plural *maiyyana* would be hard to explain.

(TchB *kātso*, A *kāts* 'belly, stomach'; TchB *kāswo* 'leprosy, skin disease'); (4) two old loanwords from Iranian (TchB *tāno* 'seed of grain'; TchB *mālo* 'alcohol; spirit'); (5) abstract nouns that are very old Tocharian formations (TchB *tsāro* 'monastery, nunnery'; TchB *kāwo* 'desire'); (6) nouns built with the suffix PTch *-(*i*)*tå* (TchB *laukīto*, A *lokit* 'stranger'; TchB *nekīto** '±destroyer'); (7) substantivised adjectives (TchB *maiyya* 'strength'). The only two alternating nouns belonging to an inflectional type somehow parallel to the *kantwo*-type can be traced back to old *s*-stems (TchB *luwo*, A *lu* 'animal') or to PIE root nouns (TchB *āyo*, A *āy* 'bone'). As for TchB *suwo* 'pig', we do not have any attestation of the plural paradigm, so that the inflectional type remains unknown. However, it can mirror its PIE reconstructed ancestor, with some motivated analogical adjustments.

3.7.2. THE *okso*-TYPE AND THE *arṣāklo*-TYPE

Tocharian B nouns with nom.sg. *-o*, obl.sg. *-ai* and their Tocharian A correspondents

The Tocharian B *okso*- and *arṣāklo*-types are two closely related inflectional classes. Since they have the same case endings, their paradigms seem to overlap at first sight. However, a closer look at their inflection and derivation reveals distinct differences. As can be seen from the table below (Table III.16), the inflection of these two types differ in the stem to which the case markers are attached: in the *okso*-type, all non-nom.sg. forms and derivatives are built on an *ai*-stem (cf. gen.sg. *oksaintse** and the derived adjective *oksaiññe* 'pertaining to the ox'), while in the *arṣāklo*-type they are built on an *a*-stem (gen.sg. *arṣāklantse* and the adjective *arṣāklatstse** '± snake-infested').[202]

Table III.16. Inflection of the *okso*-type and the *arṣāklo*-type

	NOM. SG.	OBL. SG.	NOM. PL.	OBL. PL.	STEM
okso-type	*okso*	*oksai-Ø*	*oksai-ñ*	*oksai-ṃ*	*oksai-*
arṣāklo-type	*arṣāklo*	*arṣākla-i*	*arṣākla-ñ*	*arṣākla-ṃ*	*arṣākla-*

This difference has caused some debate, in which a central question was the origin of the *ai*-element. Winter (1989: 111f.) was the first who dealt with this problem in a systematic way. In contrast with other theories previously proposed,[203] he showed that the two Tocharian B inflectional classes are in complementary distribution: all members of the *okso*-type are disyllabic, while all members of the *arṣāklo*-type are tri- or polysyllabic. As a consequence, he explains the contrast *-ai-* vs. *-a-* as depending on the position of the accent in the plural: on the one hand, the substantives of the *okso*-type were stressed on

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[202] Cf. also the contrast between dual forms of the *okso*-type, e.g. TchB *oksai-ne* 'two oxen', TchB *pokai-ne* '(two) arms', A *pokeṃ* 'id.', and dual forms of the *arṣāklo*-type, e.g. TchB *yerkwanta-ne* /yerkwántane/ 'two wheels', *wcūka-ne* /wəcə́wkane/ '(two) chins'. See recently Kim (2018: 44-6).

[203] Cf. e.g. Adams (1988a: 16), who ascribed the difference between *-añ* and *-aiñ* as due to "analogical dominance" of either the nominative or the oblique.

the last syllable, while, on the other hand, the substantives of the *arṣāklo*-type were stressed on the penultimate syllable.

Winter's analysis is generally accepted today. However, the historical issues to which these classes give rise are by no means solved, to such an extent that little convergence of scholarly opinions can be acknowledged. On the strength of views expressed by some scholars (most notably Pinault 2008: 483-5 and Peyrot 2012), I will in this section deal with the origin of these classes and with the spread of TchB *-ai* in the nominal declension. My final aim is to understand what the role of these inflectional classes has been in the evolution of the *eh₂*-stems from PIE to Tocharian. However, before proceeding to this diachronic matter, an introduction to the nouns of these classes as well as a discussion on some of the etymologies of their members are needed.

3.7.2.1. The *okso*-type

As noticed above, the *okso*-type consists of disyllabic nouns, which build the plural and derivatives on a stem ending in *-ai-* (cf. *oksaiññe* 'pertaining to an ox'). The nouns of this type are usually feminine, but we can also find sporadic masculine nouns (e.g. *okso* 'ox', *pānto* 'support', *naunto** 'street, road', Hilmarsson 1987). The stem finals are usually not attached to a preceding palatalised consonant, with very few exceptions (e.g. *swāñco* 'ray of light'). In addition, some nouns attest alternation between *-o* and *-iye* in the nominative singular, a phenomenon that is still being discussed by the specialists of Tocharian.

Hilmarsson (1987: 44f.) argues that the nom.sg. *-iye* is the result of analogy after other inflectional classes, as he recognises the oldest variant in the nom.sg. *-o*. This analysis would be substantiated by phonological evidence. Indeed, the *o*-umlauted stem in some of the *okso*-nouns can be explained by reconstructing an older nom.sg. *-o*. Furthermore, the assumption that the nom.sg. *-o* has been replaced by *-iye* poses no difficulties from the point of view of Tocharian A.[204]

Taking into consideration the meaning of the nouns, we can make the following semantic groups: (1) faunal and floristic terms, like TchB *okso*, A *opäs** 'cow'; TchB *koro** 'camel' or 'mule';[205] TchB *kraṅko* 'chicken'; TchB *tsāktso** '±duck' (hapax legomenon

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[204] An apparent counterexample could be TchB *prosko* 'fear', whose Tocharian A counterpart is *praski* 'id.'. However, TchA *praski* (alt.) cannot be the morphological match of TchB *proskiye* (f.) for formal reasons. Following Peyrot (2008: 103, 2012: 211) and Pinault (2011: 174), the possibility of an independent formation in the two Tocharian languages seems to be the best way to explain this mismatch.

[205] The meaning and the etymology of TchB *koro** are unknown. It is mostly attested in the plural in documents that deal with caravan-passes (*korai* PK Bois B18 a4, *koraiṃ* B577 b2; cf. also *koraiśke* (?) PK DA M 507.27 b2). For proposals, see Adams (DTB: 218, in favour of a meaning 'camel') and Pinault (2008: 391f., who suggests 'mule'). On TchB *etswe* 'mule', see Peyrot (2015: 222, 2018: 243, 2018a). Another peculiar faunal term is TchB *kraṅko* 'chicken' (cf. perl.pl. *kräṅkaiṃtsa* AS16.8a4 and the adjective *kräṅkaiññe* W14 a5, THT1520 a3, etc.), which has to be related to the onomatopoeic PIE root *kerk-/krek-* 'make noise' (cf. the nominal derivatives in Gk. κρέξ, κρεκός 'ruff', Skt. *kṛkara-* 'a

nom.pl. *tsaktsaiṃ* in AS16.8 a5); TchB *pyāpyo*, A *pyāpi* 'flower'; (2) abstract and action nouns, like TchB *prosko* (~ *-iye*) 'fear'; TchB *ścono*, A *śoṃ** 'enmity'; TchB *yoko* (~ *-iye*), A *yoke* 'thirst'; TchB *pānto* 'support'; (3) terms for body parts, like TchB *pokai* (obl.), A *poke* 'arm'; TchB *klautso* 'ear'; TchB *porsno* 'ankle'. In addition, there are some nouns without any common semantic feature, like TchB *kolmo**, A *koläṃ* 'boat', TchB *naunto** 'street', TchB *koṣko* (~ *-iye*) '(wooden) hut; hole (?)', TchB *koto* 'crevice, hole in the ground', TchB *lyauto* 'opening' (cf. TchA *lot* 'hole' and TchB *laute* 'moment', see Hilmarsson 1988b).[206] Two points show the productivity of this inflectional class. On the one hand, there are some nouns that analogically developed new inflected forms with an *ai*-stem, as in the case of the late obl.pl. *eśaiṃ* (IT85 b2) from TchB *ek* 'eye', shaped after nouns for body parts of the *okso*-type.[207] On the other hand, this class comprises some loanwords. A clear example is TchB *pātro*, A *pātär* 'alms bowl', borrowed from Skt. *pātra-* (nt.). A loanword of Iranian origin seems to be TchB *koṣko* '(wooden) hut (?); pit (?)', to be probably linked to the Middle Iranian ancestor of Pahl. *kwšk* 'part of a building', MP *kōšk* 'pavilion, palace, kiosk', Khot. *kūṣḍa-* 'mansion' (cf. also Tum. *kuẓda* TUMXUQ 002.a7; see Ogihara & Ching 2017: 456 fn.14), or to Khot. *kuṣḍa-* 'hole, clearing' (Van Windekens 1976: 627; Tremblay 2005: 434; Bailey 1979: 63-4; but cf. also Adams DTB: 220, who is sceptical about this etymology).

It is generally assumed that the bulk of this class is to be traced back to two PIE stem types: stems in **-on* and stems in **-eh₂* (Hilmarsson 1987: 44; Pinault 2008: 484). I am in general agreement with this reconstruction. Indeed, among the various members of this class, there are two nouns that seem to derive from the PIE stems just outlined. They are TchB *okso*, A *opäs** 'ox, cow' and TchB *skiyo* 'shadow'. Before proceeding further, it is therefore worth recalling and commenting on the etymology of both nouns in more detail.

The etymology of TchB *okso*, A *opäs** has never been in doubt: it has been linked to the familiar PIE word for 'ox', continued by many Indo-European languages, e.g. Ved. *ukṣán-*

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kind of partridge', *kŕkavā́ku-* 'chicken', YAv. *kahrka°* in *kahrkāsa-* 'vulture', lit. 'eater of chickens', MIr. *cercc* 'hen'). It seems that we have the outcome of a nasalised variant **krenk-* in Tocharian, which is also attested in Germanic (cf. OE *hringan* 'to sound, ring', ON *hrang* 'noise'). In Khotanese we find *kṝnga-* 'fowl, cock' (Bailey 1967: 52; 1979: 64), which strikingly resembles the Tocharian noun. Since all other Iranian languages have continued the nasalless variant (cf. YAv. *kahrka-tāt*, NP *kark*, Oss. *kark*, etc., de Vaan 2000: 284), one may wonder whether Khotanese borrowed this term from Tocharian (or vice versa?).

[206] On TchB *pīto* 'price', see §3.8.2.1.

[207] The palatalisation of the stem in *eśaiṃ* (vs. non-palatalised sg. *ek* < PIE **h₃ekʷ-*) comes from the dual stem *eś°*, which is from **h₃ekʷ-ih₁* (Kim 2018: 78). In addition, TchB *klautso* 'ear' (A *klots*, du. *klośäṃ*) has two different stems: the singular has nom.sg. *klautso*, obl.sg *klautsai*, while the dual is constructed on a stem *klauts°*. I agree with Hilmarsson (1989: 102-3) that the original forms must be sought in the dual, as reflecting an Indo-European **ti*-stem, **ḱlou̯ti-* from PIE **ḱleu̯-* 'to hear'. This noun originally had a *ne*-less form, as confirmed by the derivative *klautsa-pälṣi* /klautˢə́pəlṣi/ '±pricking up the ears' (IT246 a4; B162 b2 (?)). Also in this case, the singular paradigm must be analogical after body part nouns of the *okso*-type.

'id.', Av. *uxšan-* 'id.', Goth. *auhsa* 'id.', OE *oxa* 'id.', OHG *ohso* 'id.', MW *ych* 'id.', MIr. *oss* 'deer' etc. This word is usually reconstructed as a hysterodynamic *n*-stem **uks-én-*, **uks-n-* (Oettinger 1980: 46; EWAIA: I, 20).[208] Accordingly, the nominative singular was PIE **uksēn*. However, this reconstructed form cannot be the direct ancestor of nom.sg. TchB *okso* for phonological reasons (final TchB *-o*, lack of palatalisation, *o*-umlaut), and several of the Indo-European cognates just mentioned cannot continue a nom.sg. **uksēn* either. Indeed, Tocharian, (West) Germanic (OHG *ohso*, OE *oxa* < **uhsan-* < **-on-*), and Celtic (MW *ych*, OBret. *ohen* < **uxsō*) offer evidence for the reconstruction of a nom.sg. with *o*-vocalism in the suffix. This comparative evidence has led some scholars to reconstruct nom.sg. **-ō(n)* for an older stage of Proto-Indo-European, by arguing that Celtic, Germanic, and Tocharian would have preserved the original form (Szemerényi 1989: 154; Peters 1993: 394f.; Höfler 2015: 231f.).

The paradigm of TchB *okso* presents additional problems. Indeed, the fate of PIE **-ō(n)* in word-final position keeps being a debated issue among the phonological developments of Tocharian. Scholarly opinions can be divided into two trends of thoughts: on the one hand, Kortlandt (1988: 84), Ringe (1996: 89-90), Pinault (2008: 421-2), and Kim (2018: 101-2) have supported **-ō > *-əw >* TchB *-u*, *-Ø*, while Hilmarsson (1988), Fellner (2014b: 63), and Jasanoff (2018) have argued **-ō > *-å̄ >* TchB *-o*.[209] The supporters of the first hypothesis are certainly aware of the case of TchB *okso* and they also agree that part of the members of the *okso*-type are from PIE **on*-stems. As a consequence, Pinault (2008: 421f., 2017b: 144-45) and Hajnal (2005: 228 fn. 27) claimed that nom.sg. *-o* is the outcome of a secondary **-ōn*, originated from the contraction between the inherited **-ō(n)* plus the so-called Hoffmann suffix PIE **-oHon* (cf. OAv. *mąθrān-* 'knowing the *mąθras*' < **mantra-Han-*). The outcome of this conglomerate suffix would have been a Proto-Tocharian vowel with *o*-timbre, which yielded TchB *-o*, A *-Ø*. However, as Jasanoff (2018) pointed out, there is no evidence that the Hoffmann suffix was productive in Tocharian, nor that Proto-Tocharian

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[208] The PIE root is sometimes reconstructed with a labiovelar, but there is no evidence in support of this reconstruction. Höfler (2015: 232) favours the following PIE internal derivation: **h₂eug-* 'to grow' → **h₂eug-es-* 'strength' → **h₂ug-s-ó-* 'having strength' → **h₂uk-s-on-* 'the strong one'.

[209] Clear examples of PIE **-ō >* PTch **-u* are (Ringe 1996: 89-90; Pinault 2008: 421-2; Kim 2018: 101-2): (1) PIE **h₃eḱtō* 'eight' > TchB *okt*, A *okät* (with *u*-umlaut); (2) PIE *-oH* (1sg. thematic ending) > TchB *-u* (1sg.subj.); (3) **ḱuṓ* 'dog' > TchAB *ku*; (4) PIE **duóh₁* 'two' > PTch **wu* > TchA *wu*; (5) **-uós* (part.prf.act.) > TchAB *-u*; (6) **h₂ent-bʰoh₁* > TchA *āmpuk* 'both' (if final *-uk* is not analogical after TchA *puk*; Kim 2018: 85-6). In some of these forms (3-4-5), PTch **-u* can have resulted through affection by **-u-*, but for all others the situation is more complex. The reduction of PTch **-u > *-ə* in 'eight' may be analogical after **ṣəptə* 'seven' (Kim 2018: 101). Jasanoff (2018) has recently questioned the sound law **-ō >* PTch **-u*. However, I do not see any reasons for his reconstruction of a PIE dual **-ōu* for (1)-(4)-(6) (see also Hilmarsson 1989: 9f.), and there are no parallels for a hypothetical long diphthong **-ōu* yielding TchAB *-u* (on TchB *akrūna*, A *ākrunt* 'tears', see §3.6.1.2). Furthermore, I see no reason either for his claim that the participles in TchAB *-u* are the outcome of an alleged neuter **-uus* (see Peyrot 2010: 79), or that the 1sg.prs. TchB *-u* is from a supposed lenited form of PIE **-mi* (but see Malzahn 2010: 28-30).

developed a Germanic-like morphological distinction between weak and strong inflection.

Two solutions can be put forward: (1) either the nom.sg. *-ō restored the final nasal after all other *n*-forms of the paradigm (Ringe 1996: 10-1), or (2) Tocharian has simply preserved the original nom.sg. *-ōn. A clear parallel for this development is found in Greek, e.g. Gk. κύων 'dog', gen.sg. κυνός, Gk. ἄρσην 'male', gen.sg. -ενος, where final -*n* may represent either a preservation or a restoration (Chantraine 1933: 158f.; Mayrhofer 1986: 159; Byrd 2015: 21). These solutions would also explain other cases of Tocharian nominal *n*-stems with nom.sg. -*o* (e.g. the adjectives of the *klyomo*-type).[210]

To sum up, the nom. sg. PIE *-ōn of the *n*-stem was either preserved or it has been remade in *-ōn very early in the pre-history of Tocharian, through analogical levelling after other *n*-forms of the paradigm that caused the replacement of the inherited nominative case. Furthermore, there is strong evidence that at the same stage Tocharian generalised the vocalism of the suffix from the nominative throughout the rest of the paradigm. Indeed, the fact that we do not have any traces of a suffix *-*en*- in this type is confirmed by the lack of palatalisation. And yet, there are no traces of *-*on*-, either. If we, for instance, consider the nominative plural, it is expected to have evolved PIE *-*on-es* > PTch *-*œñə* > TchB **-*eñ*. As a consequence, we have to assume that the suffix was *-ōn- in all case forms, and that it regularly yielded *-*an*- in all the non-nominative singular cases (see above). On the other hand, the spread of the *ai*-stem for the expected *a*-stem should be interpreted as secondary. We will deal with this secondary replacement in the following paragraphs, where an overview of the previous interpretations will also be given.

The Tocharian A equivalent of nom.sg. TchB *okso* is reconstructed as *opäs**, based on the hapax legomenon nom.pl. *opsi* in YQI.4 a4.[211] This form has been analysed and commented in-depth by Pinault (1999: 467f., 2008: 457f.). He argues that TchA *opäs** attests a phonological development proper of Tocharian A, according to which the consonant cluster PTch *-*ks*- developed into TchA -*ps*- (cf. TchB *klayksa*- vs. TchA *klāypsā*- ~ *klepsā*- 'to dry up' < PTch **klayksa*-; TchB *ekṣalye* vs. TchA *opṣäly* 'festive day; celebration', see Pinault 2015d). What is actually unexpected is the nom.pl. TchA -*i*, which obviously cannot match the nom.pl. TchB -*aiñ*. It follows that TchB *okso* and TchA *opäs** synchronically belong to different inflectional classes. There is however strong evidence to support that the nom.pl. -*i* of TchA *opsi* is secondary. Leaving aside the Indo-European comparative evidence, nom.pl. TchA -*i* (TchB -*i*) is usually accompanied by the palatalisation of the stem-final consonant (e.g. TchA *mañi*, B *meñi* 'moons, months'). As a consequence, TchA ***opṣi* would have been expected (Pinault 2008: 498). Following

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[210] Jasanoff (2018) rejects both solutions, since he believes that Tocharian shortened long vowels before final nasals. I cannot agree with this shortening, since all forms proposed can be explained differently (e.g. the obl.sg. TchB -*a* in the *kantwo*-type, on which see §3.7.1.2). *Pace* Malzahn (2011: 94-5), there is no clear evidence that PIE *-ōn yields PTch *-*āy* (see the main text above), neither that the PIE ending *-ō was enlarged in Pre-Proto-Tocharian by *-*s*.

[211] I leave the putative "Lolanisch" *okᵤsoṃ* out of my discussion (Schmidt 2018: 166).

Pinault (1999: 468), it is possible to assume that the non-palatalising nom.pl. -*i* in the hapax legomenon TchA *opsi* has been introduced after TchA *kowi* 'cows', which is attested exactly before *opsi* in YQI.4 a4-5: (*klankañ wā*)*mpuṣ yetwentuyo kowi opsi kayurṣāñ* : *ma*(*hirṣāñ*), "(vehicles) adorned with decorations, cows, oxen, bulls, buff(aloes)" (cf. Ji et al. 1998: 37).

To conclude, on the basis of this clear PIE etymology, there is good reason to set up the hypothesis that other nouns of the *okso*-type derive from *ōn*-stems, too.

Let us now move on to TchB *skiyo* 'shadow', which has no match in Tocharian A. This noun has been the subject of several investigations from both the Tocharian and the Indo-European comparative perspectives. Many problems are involved. TchB *skiyo* has cognates in most of the Indo-European languages, including Gk. σκιά̱ 'shadow'; Ved. *chāyā̆́*- 'shadow, reflection', YAv. *a-saiia*- 'throwing no shadow' (de Vaan 2003: 120; Lubotsky 2001: 35), MP *sāyag* 'shade' < **sāya-ka*-, Sogd. *sy'k*, Khot. *śāhauja*- 'umbrella' (Bailey 1979: 398); Latv. *seja* 'face', OCS *sěnъ* 'shadow'; Alb. *hije* 'id.' < OAlb. *hē* (Demiraj 1997: 201; Matzinger 2006: 96). Despite these cognate forms, the precise identification of the PIE root and the type of suffixation involved are debated.

Beekes (2010: 1350-1) reconstructs an original ablauting formation **sḱéh₂-ih₂*, **sḱh₂-i̯éh₂*-, i.e. a PIE root **sḱeh₂*- followed by the so-called *devī́*-suffix (cf. also GEW: II, 731). Accordingly, Indo-Iranian would have generalised the full grade of both the root and the suffix, while Greek would have generalised the allomorph of the weak cases (Lubotsky 2001: 35). Although the derivational part of this reconstruction is supported by some other scholars, the value of the laryngeal is debated. Mayrhofer (EWAIA: I, 559) reconstructs the laryngeal as PIE **h₁*. The reason behind this reconstruction is the connection with the Slavic forms. Indeed, the vowel -*ě*- in OCS *sěnъ* cannot be from PIE **-eh₂*- > **-ā*-, while it can be the outcome of PIE **-eh₁*- > **-ē*-.[212] However, the Slavic form can be also accounted for with a slightly different PIE reconstruction.

Indeed, there is some evidence that the *i*-element found in *all* Indo-European descendants of this noun was part of the PIE root (as also per Rasmussen 1989: 33; Ringe 1996: 18-9; Lubotsky 2001: 35) and that the laryngeal was **-h₂*-. To begin with, outcomes of the verbal root PIE **sḱeh₂i-*/ **sḱHi*- 'to shine' are traceable in Goth. *skeinan* 'id.', Croat. *sînēm* < **skiH-n*-, and OCS *sijati* (LIV²:546; see further Derksen 2008: 450-1; Kroonen 2011: 246-7).[213] Second, OCS *sěnъ* 'shadow' can be the direct descendant of PIE **sḱeh₂i-* followed by an *n*-suffix, thus PIE **sḱeh₂i-n-* > **skain-is* > OCS *sěnъ* (with regular monophthongisation of **-ai̯-* > -*ě*-; cf. also Derksen 2008: 447, 2014:549). Third, if Lat. *scaevus* 'left, inauspicious' and Gk. σκαιός 'id.' are independent derivatives from this root (de Vaan 2008: 541), they both presuppose a protoform **skai-u̯os* (cf. **gʷei̯h₃*- 'to live' → **gʷih₃-u̯os* 'living, alive' > Gk.

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[212] Beekes' reconstruction is also based on the alleged etymological connection of Gk. σκηνή/σκανά 'tent, booth, stage' to the root under discussion, but this connection is by no means certain.

[213] According to Yakubovich (2002) and Hitch (2017: 518-9), Sogd. *sy*- 'to seem, appear' and Khot. *se*- 'id.' are from **skāi-* < PIE **skeh₂i̯*-.

ζῷον, Lat. *vīvus*, Lith. *gývas*, Latv. *dzîvs*, etc.). If this analysis is correct, then the suffix cannot have been *-ih₂/-ieh₂*. Accordingly, Rasmussen (1989: 61) and Ringe (1996: 18-19) reconstruct *skéh₂i-h₂*, *skh₂i-éh₂-* (cf. also Lubotsky 2001: 35).

The various Indo-European forms continue different apophonic grades from this paradigm. The full grade of both the root and the suffix was apparently maintained in Indian, where the noun has become an *ā*-stem.[214] Other languages, including Greek, selected the zero grade of the root and the full grade of the suffix *skHi-eh₂ > *sk(H)i-eh₂* (Pinault's law) > *skiįā* (Siever's Law).[215]

Back to Tocharian, TchB *skiyo* must be traced back to PTch *skəyå*. The final vowel PTch *-å* is the regular outcome of *-eh₂* (see §4.3.4.4, §3.7.1). It follows that the word had already become an *ā*-stem in the prehistory of Tocharian. However, it is still not clear why palatalisation of the stem did not take place; and it is in fact a debated topic of Tocharian historical phonology, since the precise contexts where PIE *i* failed to palatalise are still unclear. As a matter of fact, we have no other clear evidence of a PIE sequence *-K/Ḱi-* continued in Tocharian, so it is difficult to verify if the lack of palatalisation in TchB *skiyo* is regular.[216] On the other hand, we know that PIE *e* also palatalised those consonants that PIE *i* failed to palatalise, e.g. *kʷ* and *u* (cf. *duito-* 'second' > TchB *wate*, A *wät* and *kʷi-* > TchB *kuse*, A *kus* 'who' vs. *uégʰno-* 'cart' > TchB *yakne*, A *wkäṃ* and *kʷetuores* 'four' > TchB *śtwer*, A *śtwar*). However, it would be strange if PIE *i* did not palatalise velars in Tocharian, because velars are typologically among the consonants most easily palatalised.[217]

Be that as it may, the nom. sg. TchB *skiyo* can be the outcome of *-eh₂ > *-ā > PTch *-å > TchB -o*. On the strength of this etymological analysis, we can argue that other nouns

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[214] Neri (2003: 332) reconstructs another formation for the Vedic form, i.e. *skh₂oi-áh₂*.

[215] In my opinion, it is not possible to reconstruct laryngeal metathesis here (*h₂i > *ih₂*), since metathesis usually occurs between stops.

[216] Normier (1980: 256) and Pinault (2008: 423) suggested that PIE *i* does not palatalise bilabials, velars, labiovelars, and *s*. Van Windekens (1976: 88-9) listed alleged examples of *k > ś* before *i*, but they are all uncertain, to say the least.

[217] Cf. Bateman (2011). Accordingly, Ringe (1996: 18-9) claimed that palatalisation of the PIE velars in front of *i* must have happened in Tocharian and thus that it should have affected also TchB *skiyo*. He argued that the laryngeal in *sḰHi-* was not lost and that it must have survived as a sort of non-front vowel until after palatalisation had run its course. But this assumption sounds very improbable to me, and its fragility is acknowledged by the scholar himself. Admitting that *i* palatalised, one may claim that Tocharian inherited the Indo-European paradigm of the word for 'shadow' still intact. This led to an opposition between non-palatalised *sḱeh₂i-* > PTch *skai-* and palatalised *sḱiį-* > PTch *ṣəy-* (or the like). This aberrant alternation in the paradigm was normalised soon after: the resulting form would show the consonantal skeleton of the former, but the vocalism of the latter. But this solution is extremely questionable. A last possibility is to dismiss the etymological link of TchB *skiyo* with Gk. σκιά, etc. and to rather support a derivation from the PIE root *skeuH-* 'to cover', with possible continuants in Germanic (cf. OHG *scuwo* 'shadow') and Latin (cf. Lat. *obscūrus* 'dark').

that synchronically belong to the *okso*-type were originally *(*e*)*h₂*-formations in the proto-language, including some abstract nouns previously mentioned.[218]

3.7.2.2. The *arṣāklo*-type

As mentioned above, the *arṣāklo*-type differs from the *okso*-type in the formation of the genitive singular, the plural, and the derived forms, which are not built on a stem in -*ai*-, but on a stem in -*a*- (e.g. *arṣāklatstse* 'snake-infested'). This inflectional type includes both masculine and feminine nouns. As in the *okso*-type, we also find several faunal words in the *arṣāklo*-type, like TchB *oṅkolmo*, A *oṅkaläm* 'elephant', TchB *mewiyo* 'tiger', TchB *kercapo* 'donkey', TchB *arṣāklo*, A *ārṣal* 'snake', possibly TchB *yerkwantalo* 'leopard (?)', as well as body part nouns, like TchB *pratsāko* 'chest', TchB *wcuko* /wəcə́wko/ 'cheek, jaw' (late *wicuko*), TchB *ckācko* /cəkácko/ 'leg' (cf. also du. *tskertane* '(two) calves', DTB: 813; Kim 2018: 45). We also find several loanwords from Iranian. Examples include: (1) TchB *witsako* 'root', borrowed from an Iranian form related to Oss. Ir. *widag*, Dig. *wedagæ/jedagæ* < **u̯aitikā-* (cf. Av. *vaēti-* 'willow', Winter 1971: 222; Tremblay 2005: 426); (2) TchB *mewiyo* 'tiger', probably to be linked with LKhot. *muyi* ~ *mauya* < OKhot. **mūya-* < **mauya-* (cf. Manichean Sogd. *myw* 'id.');[219] (3) *ampoño* 'putrefaction, infection', to be linked with a Middle Iranian form **hampu-* (cf. Khot. *haṃbūta-* 'rotted, festering); (4) *tvāṅkaro* 'ginger', loanword from Khot. *ttuṃgare* 'id.' (see already Bailey 1937: 913).

Two more complex words are TchB *eñcuwo*/*iñcuwo*, A *añcu* 'iron' (see Peyrot 2008: 60 on the Tocharian B variants) and TchB *kercapo* 'donkey'. The former has been variously linked to the Proto-Iranian noun for 'iron'. Schwartz (1974: 409) was the first who suggested a relation with Khwar. *hnčw* 'steel', though he claimed that both Khwarezmian and Tocharian borrowed from a third language. Tremblay (2005: 424-5), on the other hand, reconstructed (in his notation) **ać̯u̯an-* > Khot. *hīśśana-* 'iron' (with irregular **ać́-* > *hīśś-*)[220] and further claimed that a nasalised variant of **ać̯u̯an-* was borrowed into Tocharian. Recently, Adams (2004: 29f.; DTB: 85) has put forward a different analysis. After having collected a number of etymologically related Iranian words meaning 'iron', he ultimately posited a Proto-Iranian ancestor **ańćuwan-* (in his notation). According to Adams, however, this protoform would be etymologically unanalysable in Iranian terms. For this reason, he claimed that Tocharian was actually the source language, and that Iranian borrowed from Tocharian, which had in turn inherited this form from PIE

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[218] It could be claimed that at least a part of them are the outcome of the PIE τομή-type (Pinault 2011: 174), cf. TchB *prosko* 'fear' < *proskå (umlaut) < *præskå (PIE **perk-* 'to fear' (?), cf. TchB *prəska-*, A *präskā-* 'to be afraid', TchA *praskañi* 'fearful', DTB: 402; Hilmarsson 1987; IEW: 820), TchB *kolmo* 'boat' < * *kolmå* (umlaut) < *kælmå (PIE **kelh₁-* 'to rise up' (?), DTB: 219), etc.

[219] See recently Blažek & Schwartz (2017: 58f.) with references. However, an onomatopoeic common origin cannot be discarded.

[220] The development **ać̯u̯an-* > Khot. *hīśśana-* 'iron' is not expected: the initial Khot. *h-* is unetymological (cf. Khot. *hays-* 'to drive, send' < Ir. **Hadz-a-* < PIE **h₂eǵ-*; see Maggi 2016: 76f. with references), but the palatalisation *-*a-* > Khot. -*ī-* could be from a secondary added suffix *-*i̯a-*.

*h,n̥-ǵʰeu̯eh₂- 'what is poured in' → 'cast iron' (see also Hackstein, Habata & Bross 2015: 103). I cannot agree with this analysis. If, on the one hand, TchB *eñcuwo* can be the outcome of a formation PIE *h,n̥-ǵʰeu̯eh₂- from a formal point of view, on the other hand, it is improbable to me that this word spread from Tocharian to practically all Iranian languages. Indeed, we find continuants of a protoform *atsu̯an-* in several Eastern and Western Iranian languages (Sadovski 2017: 572): *atsu̯ana-* > Oss. *æfsæn*; *atsu̯ani̯a-* > Khwar. *ʾspny*, Khot. *hīśśana-*, Shughni *sipin*, Waxi (y)*išn*; *ātsu̯ani̯ā-* > MP *ʾsyn*; *ātsuna-* > Parth. *ʾswn*, MP *ʾhwn*, NP *āhan*. I therefore remain unconvinced by Adams' proposal, but I have to admit that the exact phonological derivation of the Iranian forms is still to be clarified.

A similar case is TchB *kercapo* 'donkey'. In the past decades, this noun has been considered a loanword from the ancestor of Skt. *gardabhá-* 'donkey' < *gord⁽ʰ⁾ebʰo-* (Pisani 1942-1943: 25; Van Windekens 1976: 214; DTB: 210.). It has been assumed that the borrowing happened in an early Indo-Iranian period, taking place before the merger of the non-high vowels in Indo-Iranian (Carling 2005: 54). However, this scenario is to be rejected, not only for chronological issues, but also because of the fact that a hypothetical *gordebʰo-* is expected to yield PTch *kærts'əpæ-* > TchB **kerśape* or **kertsape*, as Pinault (2008: 393f.) has demonstrated. Even if this form were at a certain point transferred to the *arṣāklo*-type because of its meaning, there is no way to explain the unexpected outcome of *d.

3.7.2.3. On the origin of their inflection

The diachronic evolution of the *okso-* and the *arṣāklo*-types has been one of the most debated topics within Tocharian nominal morphology. The most important and/or recent discussions are Hilmarsson (1987, 1989: 82-3), Winter (1989), Hajnal (2005), Kim (2007, 2018: 67-8), Pinault (2008: 483-5), Peyrot (2012), Hartmann (2013: 413-424), and Jasanoff (2018). Each one of these scholars has taken a step forward towards a clearer understating of the development of these inflectional classes.

The pivotal question of this section is how the *(e)h₂-type and the *ōn-type evolved into these Tocharian inflectional types, merging their inflection in Proto-Tocharian. This central question leads to a number of sub-issues: (1) the reconstruction of the Proto-Tocharian paradigm(s); (2) the origin of the contrast between *ai-* and the *a*-stems in Tocharian B and their historical relation with the *ā*-stems of Tocharian A; (3) origin of the obl.sg. TchB *-ai*. In this section, I will address all these issues. Although the problems are clear, they are not easy to solve. Indeed, the data involved is difficult to be analysed from a diachronic perspective, since it requires the reconstruction of some intermediate and non-attested stages. It follows that my historical account of these inflectional types must be taken as a working option to their evolution: my final results are admittedly not entirely new, nor fully conclusive. However, I hope they will be an impulse for further investigations on this important topic of Tocharian nominal morphology.

The structure of the rest of the section is diachronically oriented. I will first deal with the reconstruction of the Proto-Tocharian paradigm of the *okso-* and *arṣāklo*-types and I

will try to understand their PIE source(s). Then, I will deal with its evolution from Proto-Tocharian to Tocharian A and Tocharian B. At the end, I will recapitulate the achieved results.

3.7.2.4. Reconstruction of the Proto-Tocharian paradigm

It is usually assumed that the *okso*-type and the *arṣāklo*-type must have descended from a common proto-type (cf. e.g. Winter 1989: 111-5; Hilmarsson 1989: 82f.; Pinault 2008: 484f.; Kim 2018: 67-8). This is certainly correct and substantiated by synchronic and diachronic evidence.

First, we have already seen that the difference between the two types is that the members of the *okso*-type are disyllabic, while the members of the *arṣāklo*-type are trisyllabic, so that an accent-conditioned sound law caused the split of the common proto-type. Second, apart from the highlighted similarities in their inflection, the members of both *okso*- and *arṣāklo*-types have many semantic features in common: animal names, terms for body parts, abstract nouns, and floristic terms are typical of both classes. Third, from a derivational point of view, we find e.g. derivatives in *-nto* in both types. Compare the following examples: disyllabic *naunto** 'road' (obl.pl. *nauntaiṃ*) and *pānto* 'support' (obl.pl. *pantaiṃ*) vs. trisyllabic *auñento* 'start, beginning' (obl.pl. *auñentaṃ**, cf. TchA *oñant*) and *yerkwanto** 'wheel' (obl.pl. *yerkwantaṃ*, cf. TchA *wärkänt*).[221]

Therefore, there are good reasons for claiming that the *okso*-type and the *arṣāklo*-type descend from a common proto-type. But still, we need to understand how this common proto-type was inflected and if its split must be reconstructed for Pre-Tocharian B or for Proto-Tocharian.

In order to answer this question, we need to compare closely the Tocharian B data with that of Tocharian A. As Peyrot (2012: 208f.) points out, the formal differences between the Tocharian B *okso*-, *arṣāklo*-, and *kantwo*-types do not exist in Tocharian A. The great majority of Tocharian A nouns matching these Tocharian B inflectional types have an unmarked singular paradigm and nom.pl. *-āñ*, obl.pl. *-ās*. Some examples are:

> TchB *pyāpyo* vs. TchA *pyāpi* (nom.pl. *pyāp(p)yāñ* in e.g. A68 a2 and THT3878 a1; obl.pl. *pyāppyās* in e.g. A253 b4);
> TchB *kolmo* vs. TchA *koläm*;
> TchB *ārṣaklo* vs. TchA *ārṣal* (obl.pl. *ārṣlās* in e.g. A1 b3);
> TchB *oṅkolmo* vs. TchA *oṅkaläm* (nom.pl. *oṅkälmāñ* in e.g. A22 b6; obl.pl. *oṅkälmās* in e.g. A395 b3; cf. the derived adj. *oṅkälmāṣi* in A403 b6);
> TchB *yerkwanto** vs. TchA *wärkänt* (obl.pl. *wärkäntā(s)///* in e.g. A152 b1);
> TchB *kantwo* vs. TchA *käntu* (obl.pl. *käntwās**);
> TchB *karyo** vs. TchA *kri* (nom.pl. *käryāñ* in A115 a4, obl.pl. *käryās* (?) in THT2424 b2);
> TchB *kātso* vs. TchA *kāts* (cf. derived adj. *kātsaṣi** in e.g. A68 a5).

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[221] On the confusion between the *okso*- and the *arṣāklo*-type is Late Tocharian B, see §3.7.2.6 below.

On the other hand, there are three cases where a Tocharian B noun with stem in -ai- is matched by a Tocharian A noun with stem in -e-. They are: TchB *pokai* (obl.) 'arm' : TchA *poke* (du. *pokeṃ*, obl.pl. *pokes*), TchB *yoko* (~ -iye) 'thirst' : TchA *yoke*, and TchB *swāñco* (~ -iye) 'ray of light' : TchA *swāñceṃ*. On the basis of these word-equations it is sometimes assumed that *-ay* already served as an oblique in Proto-Tocharian, since TchA -e can be the regular outcome of PTch *-ay.[222] However, Peyrot (2012: 211f.) has correctly claimed that none of these equations is probative. TchA *poke* can be compared with other body parts nouns that also have an *e*-stem in Tocharian A, including *pe* 'foot', du. *kanweṃ* 'knees', du. *śanweṃ* 'jaws', etc;[223] TchA *yoke* is compared by Peyrot with other abstract and action nouns ending in -e (but note that the exact morphological formation of this word is not clear, cf. Pinault 2008: 433; DTB: 552-3);[224] TchA *swāñceṃ* cannot be the exact morphological match of TchB *swāñco* ~ -iye, since the Tocharian A noun seems to be a late derivative from the Proto-Tocharian ancestor of *swāñco* (cf. the nasal enlargement).[225]

Furthermore, for the interpretation of these nouns it may be relevant that there is another small class of Tocharian B nouns that inflects exactly as the *okso*-type with the only exception of having a nom.sg. in -iye. As noticed above (§3.7.2.1), in the history of Tocharian B, some nouns of the *okso*-type were developing a parallel nom.sg. in -iye (Hilmarsson 1987: 44-45; Peyrot 2008: 102-106). However, it seems that a class with nom.sg. -iye, obl.sg. -ai already existed in Proto-Tocharian, the so-called *ymiye*-type (Peyrot 2012: 188). Only five nouns can be considered as belonging to this class: TchB *oskiye* 'habitation', TchB *kaumiye* 'pond', TchB *ymiye* 'path; station of the life', TchB *ṣpakiye* 'pill, poultice', and TchB *säly(i)ye* 'line'. The Tocharian A matching nouns usually end in -e in the singular: TchA *yme* : B *ymiye*; TchA *oṣke* : B *oṣkiye*. This correspondence is parallel to the type TchB *kälymiye* : TchA *kälyme* (with TchB nom.sg. -iye, obl.sg. -i, nom.pl. -iñ, obl.pl. -iṃ; TchA

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[222] Kim (2018: 67-8) reconstructs both the *okso*-type and the *arṣāklo*-types as *ay*-stems in Proto-Tocharian, with a subsequent reduction of posttonic *ay > *a in Tocharian B. The same reduction would have also occurred in Tocharian B adjectives with pl.f. -ʸana, which, according to Kim, would go back to PTch *-ʸayna. However, the reconstruction of an *ay*-stem for the Proto-Tocharian paradigm of the feminine adjectives is totally unfounded (see §4.3.3). On the alleged reduction of *ay > *a in Pre-Tocharian B, see below.

[223] Winter argues that we must posit *pokiye and not *poko as the nom.sg. of obl.sg. TchB *pokai*. If so, this word would have been a member of the *ymiye*-type and TchA *poke* would regularly match TchB *pokiye*. Cf. also the irregular paradigm of TchB *paiyye* 'foot' (nom.obl.sg. *paiyye*, du. *pai-ne*, nom.pl. *pai-ñ*, obl.pl. *pai-ṃ*), which is matched by TchA *pe* 'id.' (du. *pe-ṃ*, nom.pl. *pe-ñ**, obl.pl. *pe-s*, see Kim 2018: 80 with references).

[224] Jasanoff (2018) reconstructs an *i*-stem Pre-Proto-Tocharian *ēgʷʰ-oi- as the antecedent of TchB *yokai* (obl.), A *yoke*.

[225] One may wonder whether PTch *swañcå/a- (obl.) has been resuffixed in *swañcå/a-ññV in Pre-Tocharian A, with the following development: *swañcå/a-ññV > *swañcå/aⁱññV > *swañceñə > TchA *swāñceṃ*. Cf. also Hilmarsson (1987b).

nom.obl.sg. -*e*, nom.pl. -*eñ*, obl.pl. -*eṃ*), where TchB -*iye* /-əye/ phonologically corresponds to TchA -*e*.

The historical analysis of the *ymiye*-type is debated, also because its members are not attested in the archaic period of Tocharian B (with the exception of *ymiye*), and their paradigm seems to be nothing but a hybrid combination of the *okso-* and the *kälymiye*-type. Recently, Peyrot (2012) reconsidered his previous opinion on the secondary development of the *ymiye*-type (Peyrot 2008: 105-6), because the existence of this inflectional class in Proto-Tocharian would be necessary to explain the acquisition of the ending -*iye* by the *okso*-type.

To sum up, the Tocharian B *okso*-type (*ai*-stems) and *arṣāklo*-type (*a*-stems) are matched in Tocharian A by an inflectional class with zero ending in the singular and plural nom. -*āñ*, obl. -*ās*.[226] Two scenarios can therefore be outlined: (1) Proto-Tocharian had both *-*ay*- and *-*a*-stems and Tocharian B preserves this situation unaltered; (2) Proto-Tocharian had only *-*a*-stems and Tocharian B has developed the *ai*-stems later.

Three pieces of evidence can be adduced in order to substantiate the second hypothesis. First, in the Tocharian A counterpart of Tocharian B *okso-* and *arṣāklo*-types we do not find any certain or systematic counterpart of TchB -*ai*. This may imply that there was no *okso*-like class in Proto-Tocharian, where *-*ay* did not serve as an oblique (see above). Second, in the feminine inflection of the adjectives, the obl.sg.f. TchB -*ai* consistently matches with the gen.sg.f. TchA -*e*, and not with the obl.sg.f. -*āṃ*; as we will see, the latter ending should be reconstructed as a Pre-Tocharian A innovation, since some adjectival classes point to the reconstruction of an unmarked singular ending *-*a* for both the nominative and the oblique of the Proto-Tocharian feminine paradigm (see §4.3.3). Third, some other noun types that have TchB -*ai* as the oblique singular are not match by -*e* in any case form of Tocharian A (cf. e.g. the *wertsiya*-type §3.7.3, and the inflection of the *nomina agentis* of the *aknātsa*-type). It follows that Proto-Tocharian must have had only one inflectional type, and that the origin of the obl.sg. -*ai* and the *ai*-stems (i.e. the *okso*-type) is to be sought in a Pre-Tocharian B period (see also the next paragraph).

Now, since Tocharian A nouns matching Tocharian B *okso-* and *arṣāklo*-types have a plural paradigm -*āñ*| -*ās*, we need to understand whether the vowel stem TchA -*ā*- < PTch *-*a*- is to be interpreted as an innovation or an archaism. As a matter of fact, -*āñ*| -*ās* is a common plural set of Tocharian A, so one might think that its spread to this type is secondary. Furthermore, once we have understood that the obl.sg. *-*ay* should be interpreted as a Tocharian B innovation, the next task is to envision what the oblique singular in Proto-Tocharian was. I agree with Peyrot (2012) that just two endings can be postulated: either PTch *-*a* (cf. TchA *ā*-stems) or PTch *-*å* (cf. TchB nom.sg. -*o*). The Tocharian A zero-marked singular is ambiguous, since it could go back to both these

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[226] The Tocharian B *ymiye-* and *kälymiye*-types corresponds to a Tocharian A inflectional class with a singular ending TchA -*e* and a plural paradigm nom. TchA -*eñ*, obl. TchA -*es* (Peyrot 2012: 210f.). If the inflection of the *ymiye*-type is old, Tocharian A -*e* can correspond to both nom.sg. TchB -*iye* and TchB -*ai*(-).

Proto-Tocharian endings. However, only the first would have yielded -*ā*- in the plural. Therefore, it is more economic to assume that both *okso-* and *arṣāklo*-types were **a*-stems in Proto-Tocharian and that Tocharian A has preserved the original state of affairs.

Once we have reconstructed that the common proto-type inflected as an **a*-stem in Proto-Tocharian, we need to understand how these **a*-stems came about as the outcome of both **(e)h₂*- and **ōn*-stems. In what follows, I will deal with this issue, which is very tricky. As a matter of fact, I have to admit that some of my developments and reconstructions are hypothetical and, sometimes, speculative, being based on intermediate reconstructed stages.

As noticed above, at least two PIE stems are continued in both *okso-* and *arṣāklo*-types, i.e. the PIE **ōn-* and the **(e)h₂*-stems: we have therefore to clarify how these types developed in Proto-Tocharian.

Starting with the nasal inflection, it is usually assumed to have evolved as follows (Hajnal 2005: 238; Hilmarsson 1989: 83; Pinault 2008: 483f.; Hartmann 2013: 418-9; Fellner 2014b: 63): nom.sg. **-ōn* > **-å*, acc.sg. **-ōn-m* > obl.sg. **-an*, nom.pl. **-ōn-es* > **-añə*, obl.pl. **-ōn-ns* > obl.pl. **-ans*.[227] The final nasal in the oblique singular, which, etymologically, was part of the stem, has probably been lost already in a Proto-Tocharian phase. A semantic reason is behind this irregular change. Indeed, the ending PTch **-n* (> TchAB -*ṃ* /-n/) started to become a special marker of [+ human] and [+ male] entities already in Proto-Tocharian, and since there are no nouns sharing these semantic properties in the proto-type of both *okso-* and *arṣāklo*-types, they simply lost final **-n* in the oblique for

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[227] Actually, there is still some hesitation in the Tocharian development of PIE **-ō*- in non-final position. The *communis opinio* is that **-ō*- gives PTch **-a*-. However, the oft-cited PIE **dʰoHneh₂* 'grain' > **dʰōnā* > TchB *tāno* is better explained as a loanword from Iranian (see Peyrot 2018: 257f. and further §3.7.1.2). TchB *krāmär* 'weight, heaviness' (cf. TchA *krāmärts*, B *kramartse* 'heavy') need not to be the outcome of PIE **gʷróh₂-mr* (as per e.g. Ringe 1996: 8; Pinault 2008: 424), since internal -*ā*- /-á-/ can regularly reflect a vocalised laryngeal (Hilmarsson 1996: 174-5; DTB: 230-1). Also, TchB *āntse*, A *es* 'shoulder' is usually compared with Gk. ὦμος 'id.' (cf. e.g. Ringe 1996: 7; Pinault 2017b: 135), as both reflecting a lengthened grade PIE **ōmso*-. However, other hypotheses have been formulated to account for the vocalism of both Tocharian and Greek (cf. already GEW: II, 1148 and further Hilmarsson 1989: 127-8; Hackstein 2002: 190f.; Kim 2018: 81 fn. 205; the reconstruction of PIE **h₂ems*-is based on Tocharian, cf. Kloekhorst 2008: 178). There are, however, other examples that may prove an evolution PIE **-ō*- > PTch **-a*-. The collective suffix PIE **-ōr* always surfaces as -*ar* in both Tocharian languages, as in TchA *ytār*, B *ytār-ye* 'road' < PIE **h₁itōr* (cf. §3.6.1.2), TchA *ymār* 'quickly' < PIE **h₁imōr* (Van Windekens 1976: 592), PTch **wəsar*- 'spring' (cf. TchB *ysāre* 'wheat', A *wsār* 'grain') < **yesōr* (Peyrot 2018: 251f.; Pinault 2017b: 131). Theoretically, TchB *aknātsa*, A *āknats* 'foolish' may reflect either PIE **ṇ-ǵneh₃-ti-* or a zero grade **ṇ-ǵnh₃-ti*-. However, cognate formations from other Indo-European languages point to the former form (cf. Gk. ἄγνωτος 'unknown', Lat. *ignōtus* 'ignorant; unknown', Ved. *ájñāta*- 'unknown' and further Gk. ἀγνώς 'unknown; ignorant'; but Goth. *unkunþs* 'unknown' < **ṇ-ǵnh₃-t*-; see Pinault 2012: 187f. and Hackstein 2012: 156f.). Therefore, I still work with PIE **-ō*- > PTch **-a*- (cf. Pinault 2017b: 144).

morpho-semantic reasons (Hilmarsson 1987: 46). Accordingly, PIE *$\bar{o}n$-stems became PTch *a-stems.

On the other hand, the phonological development of the non-ablauting PIE *eh_2-stems is reconstructed as follows (cf. Pinault 1989: 67f.; Hajnal 2005; Fellner 2014): nom.sg. *$-eh_2$ > *$-\mathring{a}$, acc.sg. *$-eh_2-m$ > obl.sg. *$-\mathring{a}$, nom.pl. *$-eh_2-es$ > *$-\mathring{a}$, acc.pl. *$-eh_2-ns$ > obl.pl. *$-\mathring{a}ns$ (?). At this point, two hypotheses are possible: either this PTch *$\mathring{a}$-stem remained as such until the dissolution of Proto-Tocharian, or it developed an obl.sg. *$-a$ and consequently became an *a-stem prior to when Tocharian A and B split off from Proto-Tocharian. Accepting either of these two theories implies different scenarios.

If the former is the case, it follows that in Tocharian A an original PTch *$\mathring{a}$-stem (> TchA a-stem) has been influenced by the PTch *a-stem (> TchA $\bar{a}$-stem). A possible reason behind this supposed analogical change is that the PTch *$\mathring{a}$-stem and the PTch *$\mathit{æ}$-stem would have merged phonologically (see Peyrot 2012: 214 for an account of this supposed merger). There are, however, other problems to be considered.

It is generally assumed that the conflation between the Proto-Tocharian outcomes of the PIE *$\bar{o}n$- and the *$(e)h_2$-stems has been caused by the homophonous nominative singular PTch *$-\mathring{a}$:[228]

> "The reason for the wide-spread merger of ā- and ōn-stems in Tocharian is the identical outcome of *-ā and *-ōn in the nom. sg." (Hilmarsson 1986: 18).
> "Older feminine *-ā-stems have joined this class [i.e. nasal stems] due to the coincidence of the nom. sg. B -o" (Pinault 2017: 1339).

Although formal identity of the nom.sg. forms is reconstructable (cf., for instance, TchB *kantwo* 'tongue' < PIE *$d\eta\hat{g}^h\mu eh_2$- and TchB *okso* 'ox' < PIE *$uks\bar{o}n$) and this is certainly an important case form, I think that additional homophonous case forms can be reconstructed in order to historically account for the merger of these stems (see below).

Thus, it is time to test the second hypothesis, i.e. these types were *a-stems already in Proto-Tocharian. Indeed, it can be claimed that also the PIE *$(e)h_2$-stems developed into a-stems in Proto-Tocharian, and that Tocharian A has maintained the original situation. Following this line of argument, we could reconstruct the following inflection for the primary cases of Proto-Tocharian: nom.sg. *$-\mathring{a}$, obl.sg. *$-a$, nom.pl. *$-a(\tilde{n}\partial)$, obl.pl. *$-ans$. This paradigm strongly resembles the Tocharian B *kantwo*-type, where I have explained the contrast nom.sg. *-o* vs. obl.sg. *-a* of Tocharian B as mirroring an ablauting paradigm with PIE strong stem *$-eh_2$ > *$-\bar{a}$ vs. weak stem *$-h_2$- > *$-\breve{a}$ (§3.7.1.3). One can therefore hypothesise that from this type the obl.sg. *$-a$ spread also to the Proto-Tocharian outcome of the PIE *eh_2-stems and that the *a-reflexes in the common proto-type of both *okso*- and *arṣāklo*-types did not develop from *eh_2 by sound law.

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[228] Cf. also Jasanoff (2018: 77): "The identity of the nom. sg. forms [...] was the basis for the amalgamation of the two types". However, Jasanoff thinks that the coalescence was between the outcome of "amphikinetic *n*-stems" and "amphikinetic *i*-stems".

However, another possibility can be envisaged. The Leiden School (see Beekes 1985: 20-36, 2011: 199-201) reconstructs the Proto-Indo-European *(e)h₂-stems with an original ablauting suffix *-éh₂/-h₂. If we were prone to accept that Tocharian inherited and generalised this hysterodynamic ablaut throughout the inflection of the "ā-stems", then the merger with the *ōn-stems would be perfectly understandable (also on the condition that *-ōn-m > PTch *-a). Accordingly, the nom. sg. *-å can be historically interpreted as the outcome of the full grade PIE *-éh₂, and the obl. sg. *-a as the outcome of the zero grade PIE *-h₂-. It follows that the only form of the paradigm where the two types differed was the nominative plural, which would have been *-a < *-h₂-es for the *(e)h₂-stems and *-añə < *-ōn-es for the *ōn-stems. I tentatively reconstruct the development of the paradigms ancestral to the *okso-* and *arṣāklo*-types as follows:[229]

Table III.17. Evolution of the *h₂-stems and the *ōn-stems from PIE to PTch

*h₂-stems	STAGE I	STAGE II	STAGE III	STAGE IV
nom. sg.	*-eh₂	> *-å	> *-å	> *-å
acc. sg.	*-eh₂-m	> *-å(m)	>> *-a	> *-a
nom. pl.	*-(e)h₂-es	> *-a(s)	> *-a	>> *-añə
acc. pl.	*-(e)h₂-ns	> *-ans	> *-ans	> *-ans
*ōn-stems	STAGE I	STAGE II	STAGE III	STAGE IV
nom. sg.	*-ōn	> *-å	> *-å	> *-å
acc. sg.	*-ōn-m	> *-an	>> *-a	> *-a
nom. pl.	*-ōn-es	> *-añə	> *-añə	> *-añə
acc. pl.	*-ōn-ns	> *-ans	> *-ans	> *-ans

STAGE I: proto-inflection of the *h₂- and the *ōn-stems;
STAGE II: regular evolution of their inflection;
STAGE III: generalisation of the weak stem *-h₂- > *-a in the oblique singular of the h₂-stems, and loss of final *-n in the ōn-stems for semantic reasons;
STAGE IV: merger of the two paradigms and generalisation of the nom. pl. *-ñə.

The reconstructed paradigm outlined above evolved without relevant modifications in Tocharian A. The original contrast between nom.sg. *-å, obl.sg. *-a disappeared when these vowels were regularly apocopated in Pre-Tocharian A. On the other hand, the *a-vocalism of the stem was maintained in the plural, nom. PTch *-añə > TchA -āñ, obl. PTch *-ans > TchA -ās,[230] and in derived forms (e.g. *oṅkälmā-ṣi* 'belonging to an elephant').

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[229] It is also possible that the acc.pl. of the *ōn-stems first developed *-anəns and it was then reduced to *-ans by haplology. If so, the obl.pl. of the *h₂-stems may have also been reanalysed as *-anəns, with the subsequent spread of the nom.pl. *-añə.

[230] On the evolution of the Proto-Tocharian cluster *-ns in word-final position, see Pinault (2008: 458) and §4.3.4.1.

3.7.2.5. From Proto-Tocharian to Archaic Tocharian B:
Origin of the obl.sg. TchB -*ai* and *ai*-stems

Among the research questions outlined, we have dealt with the reconstruction of the Proto-Tocharian paradigm of these inflectional types, and tentatively described the morpho-phonological conditions that may have caused the merger between the *$\bar{o}n$-stems and the *$(e)h_2$-stems. We remain with the source of the obl.sg. TchB -*ai* and the origin of the contrast between *ai*- and *a*-stems in Tocharian B. These two problems are related.

Indeed, the connection between the nouns with *ai*-stems (i.e. the *okso*-type) and nouns with *a*-stems (i.e. the *arṣāklo*-type) warrants a more extensive discussion of the origin of the obl.sg. -*ai*, which has been very controversial since the beginning of the study of Tocharian nominal morphology. Let us start with the proposal by Winter (1989: 305f.), who has been the first to identify the two inflectional types under discussion. He reconstructs a sound law PTch *-*an* > TchB -*ai*, according to which the nasal vocalised in Tocharian B, at least in morpheme-final position. He attributes the difference between obl.pl. *oksaiṃ* and *arṣāklaṃ* to a change from *$oksan\#$ to *$oksai\#,$ with restoration of the nasal in e.g. the obl.pl.: *$oksan$ > *$oksai$ >> $oksai$-$ṃ$. This sound law is accepted by some scholars (e.g. Hajnal 2005: 237f.). Hilmarsson (1989: 82f.) pointed out that this development was conditioned by the accent as follows: accented *-*án*- became TchB -*ai*-, while unaccented *-*an*- yielded TchB -*an*. I see two problems with this hypothesis. First, the obl.sg. of the *okso*-type never has final accent (cf. *pyāpyai* /pyápyay/; Peyrot 2012: 184). Second, I cannot find any phonetic reason for the change *n > *y.

Another theory holds that TchB -*ai* may directly derive from Proto-Indo-European and that the source of this ending would be sought in the PIE amphidynamic *i*-stems. Thus, acc.sg. PIE *-$oi̯$-$ṃ$ > obl.sg. PTch *-*æy* > TchB -*ai* (Van Windekens 1979: 16 and 177; Marggraf 1975; Čop 1975: 11). A recent contribution by Jasanoff (2018) brought this theory back to the attention of the scholars. He claims that the amalgamation of the PIE *$\bar{o}n$-stems with the PIE *$\bar{o}i$-stems (with the generalisation of the allomorph *-$\bar{o}i̯$- throughout the paradigm) was caused by an alleged homophony of their nominative singular, both reconstructed as yielding Pre-PTch *-$\bar{o}$ > PTch *-$\mathring{a}$. Jasanoff further adds that this merger was favoured by the "immense productivity of the amphikinetic *i*-declension in Tocharian", but at the same time he does not clarify what nouns he refers to. Indeed, it is generally assumed that the amphidynamic *i*-inflection (if inherited in Tocharian) was too small a category to account for the spread of the obl.sg. TchB -*ai* (Hilmarsson 1987; Pinault 2008: 483). Furthermore, there are no certain clues in support of a lengthened grade *-$\bar{o}i̯$-$ṃ$ > PTch *-*ay* (Jasanoff 2018: 76). As Pinault (2008: 483) rightly objects, if Tocharian inherited this small class, it could not account for the proliferation of the obl.sg. -*ai*. In addition, if *$\bar{o}n$- and *$\bar{o}i$-stems really merged in Pre-Proto-Tocharian under the identity of their nominative singular, I would have expected that the new conflated paradigm was based on the most productive stem-type, which, in the case under discussion, is not the *$\bar{o}i$-stem. As a consequence, it does not seem possible to derive TchB -*ai* (exclusively?) from the PIE *i*-stems.

The two last theories that need to be commented on are those of Pinault (2008) and Peyrot (2012). Their results are greatly at odds, since Pinault argues that the origin of TchB *-ai* should be sought in the **ōn*-stems, while Peyrot sees it in the **(e)h₂*-stems. Rather than taking sides in favour of one or the other, what I would like to show is that both theories are correct, since they offer complementary explanations of the origin and the spread of TchB *-ai*. We start the discussion with Peyrot's hypothesis.[231]

Peyrot's theory implies that the ending TchB *-ai* is of Proto-Indo-European origin: it would be the outcome of PIE loc.sg. $*-(e)h_2-i$ and dat.sg. $*-(e)h_2-ei$, reanalysed as the oblique in a Pre-Tocharian B stage. In the past decades, Pedersen (1941: 43), Lane (1976: 145-6), Klingenschmitt (1975: 153, 1994: 319-20), and Kim (2009: 84 fn. 29) have proposed or supported the same Proto-Indo-European origin, but they only based their analyses on the formal level of this equation. Instead, Peyrot has made this derivation clearer and more precise through closer inner-Tocharian correspondences. Indeed, he claims that the gen.sg. TchA *-e* and the obl.sg. TchB *-ai* must be analysed as the outcome of the same PIE form, namely the dative-locative, and that this marker served as a genitive-dative in Proto-Tocharian. This claim receives a strong confirmation by a close comparison between Tocharian A and B.

The evidence found by Peyrot can be summarised as follows: (1) some of the inflectional classes with obl.sg. TchB *-ai* have the respective Tocharian A matching nouns with gen.sg. *-e* (e.g. obl.sg. TchB *aśiyai* : gen.sg. TchA *aśśe*, from TchB *aśiya*, A *aśi* 'nun'); (2) Tocharian B lacks any gen.sg.f. form in the adjectival inflection, while Tocharian A consistently attests a gen.sg.f. *-e* (e.g. obl.sg.f. TchB *klyomñai* : gen.sg.f. TchA *klyomine* from TchB *klyomo*, A *klyom* 'noble'); (3) several adverbs end synchronically in TchB *-ai*, A *-e* (e.g. TchB *amāskai* 'with difficulty', TchB *anaiśai* 'carefully', TchA *kātse* 'close', TchA *pre* 'outside' etc.). All these correspondences lead to the reconstruction of TchB $-^{(y)}ai$, TchA $-^{(y)}e$ < PTch $*-^{(y)}ay$ < PIE $*-(i)(e)h_2-ei$ or/and $*-(i)(e)h_2-i$ (cf. also Kim 2018: 94). I thus reconstruct the singular paradigm of the Pre-Tocharian B ancestor of both the *okso-* and *arṣāklo*-types as follows: nom.sg. PTch $*-\mathring{a}$ > Pre-TchB $*-o$; acc.sg. PTch $*-a$ >> Pre-TchB $*-a-y$. This $*-ay$ may still have served as a genitive-dative in Proto-Tocharian. When Tocharian B reanalysed it as the oblique, the gen.sg. was marked with the nasal genitive $*-nse$, which was attached to the new obl.sg. $*-ay$, thus $*-ay-nse$ > TchB *-aintse*. Unfortunately, there is hesitation in the genitive singular of Tocharian A, because *ā*-stems matching TchB *okso-* and *arṣāklo*-types usually do not attest genitive singular forms. A direct correspondence between gen.sg. TchA *-e* : obl.sg. TchB *-ai* can be observed in gen.sg. TchA *oṅkälme* : obl.sg. TchB *oṅkolmai* from TchA *oṅkaläm*, B *oṅkolmo* 'elephant' (Pinault 2009a),

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[231] For yet another proposal, see Hackstein (2012: 161), who seems to equate the TchB obl.voc.sg. *-ai* found in the formation in TchB *-eñca* with the vocative of the type γύναι. He concludes that the homophony between the vocative and the oblique singular is nothing but the preservation of an older state of affairs.

which might be used for reconstructing a gen.sg. *-*ay* for Proto-Tocharian. However, the isolation of this genitive form requires caution.[232]

Although Peyrot's analysis can explain the origin of most of the obl.sg. -*ai*, I believe it can hardly account for the origin and the spread of the Tocharian B *ai*-stems (i.e. the *okso*-type). We should therefore wonder whether other sources of TchB -*ai*- can be identified. At this point, Winter and Hilmarssons' theory on the difference between *okso*- and *arṣāklo*-types becomes relevant again. We have already seen that they explain these two classes by means of different outcomes of PTch *-*an*- conditioned by the accent (Marggraf 1975): considering the oblique plural, on the one hand, the substantives of the *okso*-type were disyllabic and stressed on the last syllable (e.g. *oksáiṃ*), while, on the other hand, the substantives of the *arṣāklo*-type were trisyllabic and stressed on the penultimate syllable (e.g. *arṣā́klaṃ*).[233] As a result, in the *okso*-type the accent would have caused the diphthongisation: the two inflectional types would have the same origin, but the *arṣāklo*-type would preserve an older state of affairs.

Recently, Kim (2007: 19f., 2018: 44-46, 67-8) and Peyrot (2012: 184f.) have put this development into question, claiming that the correspondence is to be interpreted the other way around. They argue that both *okso*- and *arṣāklo*-types were originally *-*ay*-stems in a prehistoric stage of Tocharian B. The diphthong has been maintained in accented position (i.e. in the *okso*-type), but monophthongised in posttonic position (i.e. in the *arṣāklo*-type). That is to say, after the break-down of Proto-Tocharian, the *-*a*-stems first became *-*ay*-stems, continued as the TchB *okso*-type, and then a part of these new *-*ay*-stems turned into *-*a*-stems, becoming the TchB *arṣāklo*-type. The sound law underlying these developments can be schematised as follows (Peyrot 2012: 189): * ´-*ayn* > * ´-*an*. However, there is no strong evidence that may testify this sound law, except for the alleged reduction of -*oy*- to -*o*- in TchB impf. and opt. forms of the type *tākoṃ* 'may they be' < *tákoy-ən* (Kim 2007: 19-20 fn. 32; Peyrot 2008: 142-4). A general fact in favour of Kim and Peyrot's hypothesis is that stressed syllables are typologically better maintained. Although this is certainly true, it does not mean that they cannot undergo modifications but simply that they are louder and less apt to be dropped. Indeed, diphthongisation of stressed vowels can be found in the historical development of many languages. A good example in this sense can be sought in the phonetic evolution from Latin to Romance languages, where cases of diphthongisation of stressed vowels are frequent (e.g. Lat. *pĕ́dem* > It. *piede*; Lat. *pŏ́rtum* > Sp. *puerto*; Lat. *nŏ́vum* > OFr. *nuef*, etc.). Furthermore, neither Kim, nor Peyrot clarify how these alleged *-*ay*-stems would have come about in

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[232] A further comparable item may be TchA *kātse* 'near, close', which could be related to TchA *kāts* 'belly, womb', B *kātso* 'id.', a member of the *kantwo*-type. TchA *kātse* is traced back to PTch *katsay* by Pinault (1991: 186) and Hilmarsson (1996: 112). See further Peyrot (2012: 207). The gen.sg. TchA *käntwis* from *käntu* 'tongue' must be secondary. On the form *kätwes* (A300 b3), cf. Hilmarsson (1996: 114), Malzahn (2010: 553), and §3.7.1.2 fn. 156.

[233] Cf. Winter (1987: 305f.).

Pre-Tocharian B (or Proto-Tocharian); I think that the generalisation of the new obl.sg. -*ai* is not sufficient.

I therefore believe that the classical interpretation as formulated by Winter has the advantage of leaving a way out in this intricate development.

With the reconstruction of *okso*- and *arṣāklo*-types as both coming from Proto-Tocharian *a-stems, introducing the theory of Pinault (2008) on the origin of TchB -*ai* becomes relevant. Pinault argues that the source of TchB -*ai* should be sought in the nominative plural of the *ōn-stems, PIE *-*ōn-es* > PTch *-*añə*. He claims that in final syllables an accented sequence PTch *-*áñə#* would have regularly become *-*áyə*. This sound law could be more clearly discerned in two isolated forms (Carling 2003: 92-3): (1) nom.pl. TchB *śrāy* 'elders', whose obl.pl. *śrānäṃ* /śránən/ clearly speaks in favour of the reconstruction of a Proto-Tocharian nominative plural *śrañə; (2) TchB *ylai-ñäkte* 'Indra' < *ylañ-ñəkte < *ylan-ñəkte (cf. TchA *wlāṃ-ñkät*). According to Pinault, in an unattested phase of Tocharian B, all nouns of the *okso*-type spontaneously developed a nominative plural *oksay, and from this protoform the element *-*ay* was extracted and then generalised as the oblique singular of some other inflectional classes. Soon after, the expected nom.pl. *oksay was replaced by TchB *oksaiñ*, on the model of *arṣāklañ*.

In broad terms, I agree with the sound law suggested by Pinault, although my proposal differs in some details. First, the diphthong that arose in the nominative plural can hardly be the source of the oblique singular (see the criticism by Peyrot 2012: 191). Second, if nom.pl. *-*áñə* really evolved into *-*áy*, I would expect to find more direct evidence of this ending.

Still, I believe Pinault's sound law can be slightly modified as follows: PIE *-*ōn-es* > PTch *-*áñə#* > Pre-TchB > *-*áʸñə#* > TchB -*áiñ*, i.e. in stressed syllables a palatal nasal transferred the palatalisation to the preceding vowel, which thus became a diphthong. From a phonetic perspective, this development can be explained as a case of anticipated palatal pronunciation (assimilation) of a vowel in front of a following palatal consonant. It follows that, if a noun of the *okso*-type had an obl.sg. Pre-TchB *-*ay* as the outcome of the gen.(-dat.)sg. PTch *-*ay* and a nom.pl. Pre-TchB *-*ayñə* as the outcome of the sound law just discussed, it may have generalised *-*ay*- as the basic stem of all other cases and derivatives, which were equally stressed on the last syllable.[234] A schematic summary of the final development of *okso*- and *arṣāklo*-types is the following:[235]

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[234] One may object to Pinault's sound law that also the residual *kantwo*-type could have had a nom.pl. *-*áñə* in Proto-Tocharian. However, this inflectional type shows many differences with respect to the *okso*-type. From a diachronic point of view, there are, apparently, no historical *n*-stems continued in the *kantwo*-type and the nom.pl. marker -*ñ* may have been added at a later stage. From a synchronic point of view, it seems to have a clear contrast between stressed nom.pl. -*āñ* and unstressed obl.pl. -*aṃ*, and an obl.sg. -*a* (vs. -*ai* of the *okso*-type). As a consequence, even if PTch *-*áñə#* became Pre-TchB *-*áʸñə#* also in this type, then analogical levelling from the rest of the paradigm could have easily changed it to *-*áñə* again.

[235] As concerns *śray* 'elders' (attested only in classical and late texts), I would suggest the following development: *śráñə > *śraʸñə > *śraʸnə > *śrāy*. The reason why this development could have taken

Table III.18. Evolution of *okso-* and *arṣāklo*-types from Pre-Tocharian B to Archaic Tocharian B

okso-type	PRE-TCHB		ARCH. TCHB	*arāklo*-type	PRE-TCHB		ARCH. TCHB
nom. sg.	*´-o	> *´-o	> ´-o	nom. sg.	*´-o	> *´-o	
obl. sg.	*´-ay	> *´-ay	> ´-ai	obl. sg.	*´-ay	> *´-ai	
nom. pl.	*-áñə	> *-á͡ʸñə	> -áiñ(ə)	nom. pl.	*´-añə	> *´-añ	
obl. pl.	*-án	> *-án	>> *-áin	obl. pl.	*´-an	> *´-an	

A further indication of the phonetic change *-áñ > *-á͡ʸñ may be warranted by the fact that, out of the *kantwo*-type, final *-āñ* /-áñ(ə)/ in extremely rare in Tocharian B. [236] Furthermore, this modified version of Pinault's sound law PTch *-áñə# > Pre-TchB *-á͡ʸñə# > TchB *-áiñ* partially resemblances to similar processes of assimilation in late and colloquial texts. All these developments involve assimilation of the palatal pronunciation of a palatal consonant over a preceding (or following) vowel. Examples are: (1) *a* (and /ə́/) > *ai* (Peyrot 2008: 54-5), e.g. *ravaiññe* (Gsu2 1) for *rapaññe* /rapə́ññe/ 'pertaining to the last month of the year', *läksaiñe** (IT206 b1) for *läkṣaññe* /ləkṣə́ññe/ 'pertaining to fish', *oṅkolmaiññe* (W20 b3) for *oṅkolmaññe* /oṅkólmaññe/ 'pertaining to elephant'; (2) non-accented *ä* /ə/ > *i* /əy/ (Peyrot 2008: 55-7), e.g. *astariññe* (B586 4) for *astaräññe* /astə́rəññe/ 'purity', *miñcuṣka* (B400 a5) for *mäñcuṣka* /məñcuṣka/ 'princess', *bram-ñäkte* (e.g. B107 a8-b1) for *brahm-ñäkte* 'god Brahma';[237] (3) the isolated word *āñme* > *āyme* 'soul, self'. Furthermore, a comparable phenomenon occurred in the prehistory of Tocharian B, where the Proto-Tocharian palatalised labials *ṕ* and *ḿ* transferred their palatalisation to a following *ə* causing its colouring to *i* (e.g. TchB *pilko*, A *pälk* 'thought' < PTch *ṕəlkå; TchB

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place is probably twofold: on the one hand, TchB *śray* is an accented monosyllable and the apocope of the final nasal could have happened earlier; on the other hand, dissimilation of the two palatals *ś...ñ* could have taken place.

[236] I found the following forms: (1) TchB *kāñ* (IT9 b1; B45 a2; THT1375.c a5) is a word of unknown meaning and etymology (DTB: 158); (2) TchB *luwāñ* is attested only once in IT395 b2 /// *mā luwāñ śau*///. If not an error for *luwāññe* 'pertaining to animal' (as it seems not to be, since it is written with final *ä* and the virāma), this *luwāñ* can be a late nom.pl. of *luwo* 'animal' (regular nom.obl.pl. *lwāsa*, see §3.7.1.2), which has been analogically created after nouns of the *kantwo*-type (both with nom.sg. *-o*, obl.sg. *-a*); (3) on TchB *sāñ* 'skill', see Peyrot (2008: 83 and 170); (4) the hapax legomenon nom.pl. *läkle-l̥yakāñ* 'seeing suffering' (AS7E a6 [class.]; Sieg 1938: 22), a verbal governing compound of the *rita*-type, is not written as one would expect (cf. Malzahn 2012b: 114 "Widersprüchlich ist der Befund bei der Form B *läkle-l̥yakāñ* [...]"; cf. further *yikne-ritañ*; *yolo-ritañ*; see also Fellner 2018); (5) TchB *yäktāñ* (B351 a6) is a sandhi-variant of *yäktāñm* 'feeble, weak'. Other instances of final *-āñ* are of no value (cf. the verbal forms with 1sg. *ñ*-enclitic, e.g. *krasāñ* in B400 b1 or *nautāñ* in B591 a7; *nervvāñä*/// B591 a3 is to be restored as *nervvāñä(ṣṣe)*, cf. Peyrot 2013: 323).

[237] There may be a few examples of *-a-* /ə́/ > *-i-* /əy/, e.g. in *l̥ykiśke* (B192 b3, class.) for *l̥ykaśke* /ĺkáśke/ 'small, little, fine' (cf. Kim 2018: 53; Hilmarsson 1989: 85; Pinault 2011: 182 fn. 41). On TchB *ñaś ~ ñiś* 'I, me', cf. Peyrot (2008: 56) and now Malzahn (2017).

mit 'honey' < PTch **m̥ətə* < PIE **médʰu-*). All these developments occurred in different chronological stages and they are never the same development. Still, they are all similar and may perhaps form a kind of drift.

3.7.2.6. From Archaic Tocharian B to Late Tocharian B

In his book on variation and change in Tocharian B, Peyrot (2008: 78-84) dealt with variant forms that attest final *-ñ* alternating with final *-ṃ*. He has collected and commented on a large amount of data, which appears however quite inconsistent. Indeed, some cases may offer support for a *-ñ* > *-ṃ* development, while some others do not. He concluded that a sound law *-ñ* > *-ṃ* should be postulated in any case, at least for the late stage of Tocharian B. The main reason why Peyrot dealt with this problem of Tocharian B historical phonology is namely the attestation of variant forms in the nominative plural of Class VI (TchB *-ñ*). Krause and Thomas (TEB §185) have been the first to notice these variants, but they were not able to understand if *-ñ* > *-ṃ* was due to sound change or analogy.

Attestations of a nom.pl. *-ṃ* in place of the expected *-ñ* can also be found in the classes with pl. *-añ*, *-aiñ*, which are also the most frequent classes with nom.pl. *-ñ*.

Table III.19. Variant forms of the nominative plural in nouns with *ai*-stems

TOCHARIAN B STAGE	NOM.PL. FORMS	DOMINANT NOM. PL.
archaic	**ñ-plural (4):** *kᵤṣaiñä* (B275 b1, verse); *nauntaiñä* (B275 a3, verse); *klyotaiñä* (AS9B b7, prose); *pyāppyaiñ* (B275 a2, verse)[238]	*-aiñ*
archaic - classical	**ñ-plural (2):** *kotaiñ* (AS7H b4, verse) *pokaiyñ(o)* (B214 b3, verse)	*-aiñ*
classical	**ñ-plural (1):** *kaumaiño* (B45 b7, verse); **n-plural (14):** *oksaiṃ* (AS15B b3); *koraiṃ* (B577 b2); *nauntai(ṃ)* (AS17J b1), *nauntaino* (AS16.4.1 b5); *parśaiṃ* (AS16.1 b3, AS17G b6); *pyapyaiṃ* (AS8C b6; IT14 b2; AS6D a3); *swañcaiṃ* (IT107 a2, NS37 a1); *ṣitaiṃ*[239] (IT1094 b2); *tsaktsaiṃ* (AS16.8 a5?);[240] **Ø-plural (1?):** *swañcai* (THT1455 a3, frgm.)	*-aiṃ*

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[238] Cf. also *nauntainä* in B394 b3. I have not included in this list the hapax legomenon TchB *kompaino* (B588 a1) of uncertain meaning (DTB: 216; Thomas 1997: 100). Malzahn (2012a: 62) interpreted it as a nom.pl. with *o*-mobile. If this interpretation is correct, then TchB *kampaino* should be considered as a nom.pl. in *-ain* from an archaic text (Hilmarsson 1996: 166).

[239] On TchB *ṣito* 'messenger', see CETOM (s.v. *ṣito*), Ogihara (2013a: 207-8), and Pinault (2017b).

[240] I have omitted *ṣpakaiṃ* 'pills', which is found several times in construction with the gerundive pl.f. *yamaṣṣällona* from *yam-* 'to do', though it seems to be inflected as a nom.pl., i.e. *ṣpakaiṃ yamaṣṣällona* "pills are to be made" (cf. DTB: 729-30).

late	–	*-aiṃ / -ai* (?)
colloquial	**n-plural (4?):** (*o*)*ksaiṃ* (PK Bois B30 a1), *ok(s)ai(ṃ)* (PK Bois B19 a5), *oks(aiṃ)* (PK Bois B104 a3); *korraiṃ* (PK LC 11 b4?); **Ø-plural (3?):** (*oks*)*ai* (PK Bois B139 a2), *oksai* (PK reserve B 3.2. a1); *korai* (PK Bois B19 a4)	*-aiṃ / -ai*

The situation of the *okso*-type is complex, but clear enough. We systematically find *-aiñ* in archaic texts, *-aiṃ* in classical texts, and *-ai* in colloquial texts. Outside of archaic and archaic-classical texts, the only form with *-aiñ* is TchB *swañcaiñ* (B 108 [late]), which is however used as an oblique plural (Peyrot 2008: 80).

Table III.20. Variant forms of the nominative plural in the *arṣāklo*-type

TOCHARIAN B STAGE	NOM.PL. FORMS	DOMINANT NOM. PL.
archaic	**ñ-plural (3):** *kercapañ* (B118 b3); *tvāṅkarañ* (AS9A b7); *mokośwañ* (B118 b3)	*-añ*
archaic - classical	**ñ-plural (1):** *oṅkolmāñ* (NS30 b3)	*-añ*
classical	**ñ-plural (3):** *mewīyañ*[ā] (IT195 a6); *yerkwantalañ* (IT195 a6); *taunaulykañ*[ā 241] (IT96 b2); **n-plural (1):** *arṣāklaṃ* (IT199 b2, damaged)	*-añ / -aṃ*
late		(?)
colloquial	**n-plural (3):** *kercca(p)paṃ* (PK Bois B104 a3?), *kercapaṃ* (PK réserve 1517 B3.1 a4,), *kerccapaṃ* (PK Bois B20 a3?)	*-aṃ*

As far as the *arṣāklo*-type is concerned, the situation is clear. Except for the nom.pl. TchB *arṣāklaṃ* in a classical fragment for which I do not have a clear explanation, we systematically find the plural form *-añ* in archaic, classical, and classical-late texts. The only attestations of a variant *-aṃ* are from colloquial texts. If we consider Tocharian B agent nouns of the *aknātsa*-type, which attest a plural paradigm identical to the one of the *arṣāklo*-type, we find confirmation for this development, since I found nom. pl. *-añ* in several classical texts: *aknātsañ* (B263 a4, [arch.]; SI B 121(2) a2 [class.]; B2 b1 [class.]; B24 b3 [class.]; B31 a7 [class.]; B286 b2 [class.]) vs. *aknātsaṃ* (B23 b7 [class.]), *kauṣentañ* (AS7H a6 [arch. - class.]; AS17J b6 [class.]), *yokäntañ* (B248 a3 [arch. with late form]), *prekṣentaṃ*

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[241] Adams (DTB: 295) interprets TchB *tanaulykaṃ* in B48 a5 as a nominative plural: *tanaulykaṃ ramt sektwetse pile ra ptark(aso)* "leave the suppurating wound [which you are buzzing around] like flies" (transl. by Adams). On the other hand, Sieg & Siegling (1949: 70-71) translates *tanaulykaṃ* as a regular oblique: "…also like the wound of pus [attracts] flies. Give up the…" (cf. Hannes A. Fellner apud CETOM).

(NS44 b3 [class.]), *kälpaucañ* (NS263 a1 [class.]), *kärsaucañ* (B597 a2 [class.]), *yaṣṣūcañ* (B78 a1 [class.]), *ynūcañ* (AS1A b1 [class.]; B45 a2 [class.]), *kleñcaṃ* (AS6a a2 [class.]), etc.[242]

The data just discussed confirm the sound law proposed by Peyrot but further add that *-aiñ* became *-aiṃ* earlier than *-añ* became *-aṃ*. The motivation that underlies this development is phonetic: the nasal in *-aiñ* lost its palatalisation earlier because it was in the proximity of a palatal (semi)vowel. The causative *pelkiñ* 'for the sake of' > *pelkiṃ* (cf. also *pelykiṃ* in PK DA M 507.7 a6, LC 6 a1; SI B Toch 11 a5; B108 b4; B177 a6) confirms this assumption. Other examples of *-iñ* > *-iṃ* can be found in the nominative plural of the *kälymiye*-type (TEB VI.1.), e.g. TchB *riṃ* 'cities' for *riñ** in THT1311 b6 *kᵤcesa plkāntär toṃ riṃ no///* "but how are these cities to be seen/visible" (cf. Malzahn 2010: 716); TchB *kälymiṃ* 'regions, directions' for *kälymiñ** in B108 b6 *śwāra kälymiṃ po prautkar nermi(t)eṃ (p)oyśintasa* "The four directions (became) filled up with artificial Buddhas" (cf. Meunier 2013: 156; but see also Peyrot's translation 2008: 133-4 "they [i.e. the beams] filled all four cardinal points with artificial omniscient (Buddhas)"). I found only one example of a nom.pl. in *-iñ* in Tocharian B, namely *kärtse-yamiñ* in B81 b5 (class.).[243] One cannot even rule out the possibility that depalatalisation of *-ñ* > *-n* only occurred in the proximity of a palatal vowel or semivowel, i.e. only before *-ai-* and *-i-*, and that the *arṣāklo*-type extended this new nom.pl. *-n* by analogy.[244]

Another interesting fact that, to my knowledge, has not been properly pointed out so far is that some nouns belonging to the *okso*-type are sometimes inflected as members of the *arṣāklo*-type in classical-late and late texts, and vice versa. Examples include: TchB *klyoto* (nom.pl. *klyotaiñä* AS9B b7 [arch.] and *klyotaiṣṣe** AS2A a5 [class. ~ late], AS3A a5 [class. ~ late] vs. *klyotañ* THT 500-502 b9 [late]), TchB *wrāko** (obl.pl. *wrakaiṃ* in AS17K a3 [class.] vs. *wrākaññeṃ* in NS18A a2 [late]), TchB *pānto* (perl.pl. *pantaintsā* in B274b4 [arch.] and *pantaitstse* in AS7K b1 [class.] vs. nom.pl. *pantañ* B108 a6 [late]), TchB *kraṅko* 'chicken' (*kräṅkaiññe* 'stemming from chicken' in W14 a5 [class.], THT1520 a3 [arch.] vs. *kräṅkañe* in AS3A b3 [class. ~ late]), TchB *pyāpyo* 'flower' (gen.sg. *pyapyaintse* IT879 b3 [class.] vs. *pyapyantse* (?) W32 b2 [class.]),[245] and probably TchB *mantālo** '±malice' (*mantālaitstse** 'evil-minded' in IT51 be [class.?] and IT262 a1 [class.?] for expected

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[242] Nom.pl. *-aṃ* for regular *-añ* is also found in the *wertsiya*-type (Peyrot 2008: 79-80): e.g. *wertsiyaṃ* in B221 (if a real nominative, as per Peyrot 2008: 79, but cf. also Thomas 1957: 172 who considered it as an oblique); *ploriyaṃ* in B289 a6. The nom.pl. TchB *sᵤsuśkañ* seems to be consistently written as such (e.g. in B25), and the voc.pl. always *sᵤsuśkaṃ* (B81 a1; B198 a5; B1573.a; B108 and probably THT3596 a4). Cf. also voc.pl. *ṣaiyyiśkaṃ*.

[243] The form *sākṣiñ* in B623 a3 is a hapax of uncertain meaning (see DTB: 744 for a suggestion).

[244] Indeed, it should be note that *-ñ* > *-ṃ* in the nominative plural mostly occurred in those classes with obl.sg. *-i* or *-ai*. One may therefore wonder whether this development originated in the *okso*-type and the *kälymiye*-type and then spread to other classes with obl.sg. in *-a-i* (e.g. *arṣāklo*-type, *wertsiya*-type, etc.).

[245] The fragment W32 is very fainted and a reading *pyapyaintse* cannot be excluded.

**mantālatstse).[246] These variants may prove that there was confusion between the inflection of the *okso-* and *arṣāklo-*type even in the historical phase of (late) Tocharian B.

In addition, if we accept this sound law, then we can explain the irregular plurals *klyotañ* and *pantañ* in the late documents B500-502 and B108 a6 as hypercorrect forms, as already pointed out by Malzahn (2011: 95 fn. 31; cf. also *maiyyañ* in IT96 a5 [class.-late]; perhaps the perl.sg. *klañtsa* for *klaiñtsa* in B330a3 [late] and *wrākaññeṃ* for *wrākaiññeṃ** in NS18A a2 [late]). The data just discussed may be summarised as follows:

Table III.20. Evolution of the nominative plural in *okso-* and *arṣāklo-*type

	ARCHAIC	ARCHAIC-CLASSICAL	CLASSICAL	LATE	COLLOQUIAL
*okso-*type	*-aiñ*	*-aiñ*	*-aiṃ*	*-aiṃ* (>> *-añ*) / *-ai*	*-ai*
*arṣāklo-*type	*-añ*	*-añ*	*-añ / -aṃ*	*-añ / -aṃ*	*-aṃ*

3.7.2.7. Summary

To sum up the results of our investigation, we have seen that *okso-* and *arṣāklo-*types are two closely related inflectional classes in Tocharian B. They have similar case markers, but the former includes *ai-*stems, the latter includes *a-*stems. On the other hand, these Tocharian B classes correspond to only one inflectional type in Tocharian A, which includes *ā-*stems. After having considered several hypotheses to explain this mismatch, we have seen that Tocharian A has maintained the archaic state of affairs, as only one class can be reconstructed for Proto-Tocharian. This proto-type inflected as an **a-*stem. Therefore, I have investigated the split of this proto-type in Tocharian B, commenting on the origin of the *ai-*stems and the obl.sg. *-ai*. If, on the one hand, this ending can be traced back to a dat.sg. **-(e)h₂-ei* and/or to a loc.sg. **-(e)h₂-i*, on the other hand, the spread of *-ai* in both the inflection and the derivation of the *okso-*type has been explained as secondary. It is the outcome of a paradigmatic analogical levelling, which originated not only in the oblique singular, but also in the nominative plural, which evolved by sound change as follows: PTch **-áñə#* > Pre-TchB **-áʸñə#* > Archaic TchB *-áiñ#* > Classical TchB *-aiṃ#* > Late-Colloquial TchB *-ai#*. In partial accordance with the scholarly literature, the bulk of both *okso-* and *arṣāklo-*types is to be ultimately traced back to the PIE **ōn-*stems and to the hysterodynamic PIE **(e)h₂-*stems.

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[246] Another case could be TchB *āppo** 'dad'. The nominative singular of this noun is not attested so far, but all scholars agree in reconstructing it with final *-o*. And since it is disyllabic, we would expect it to be a member of the *okso-*type. However, a genitive singular *āppantse* (e.g. in B589 b4) and not **appaintse* is attested. But since this noun is mostly attested in the vocative (cf. B83 a5: *āppa ate yāmtsi päkn(ā)star-ñ*, 'Daddy, do you intend to give me away?'), one may think that the gen.sg. *āppantse* is actually based on the vocative form. Cf. also the derivative *appakke* 'dear dad', with *-(k)ke* (with its variants, on which see Malzahn 2013: 112-4) forming hypocoristics. On this form and the alleged gen.sg. *pyapyantse*, cf. Hilmarsson (1996: 35).

3.7.3. THE *wertsiya*-TYPE

Tocharian B nouns with nom.sg. -ʸ*a*, obl. sg. -ʸ*ai* and their Tocharian A correspondents

The most noteworthy formal characteristic of the *wertsiya*-type is that its members have a palatalised stem or a palatal stem final. Their inflection for the archaic period of Tocharian B was as follows:

Table III.20. Inflection of the *wertsiya*-type

INFLECTIONAL CLASS	NOM. SG.	OBL. SG.	NOM. PL.	OBL. PL.	STEM
wertsiya-type	*wertsiya-Ø*	*wertsiyai*	*wertsiyañ* *	*wertsiyaṃ*	*wertsiya-*

If we compare this inflectional type with other classes examined so far, we can easily recognise that the *wertsiya*-type is halfway between the *aśiya-* and the *arṣāklo*-type: the singular is the same as the former, while the plural is like the latter (apart from the palatalisation).[247] In the history of the studies about Tocharian nominal morphology, the *wertsiya*-type has never received much attention. Even though several studies have referred to nouns from this class, a systematic investigation of their origin and evolution is still missing.

Peyrot (2008: 101, 2012: 189-90) divides this inflectional type into two subclasses: a class of disyllabic words (the so-called *wṣeñña*-type) and another one of trisyllabic words (our *wertsiya*-type). This subdivision is functional to the diachronic analysis of Tocharian B. Indeed, from archaic to classical-late Tocharian B, the nouns of the *wertsiya*-type developed a new nom.sg. in *-o*, analogically taken after the *arṣāklo*-type, with which the *wertsiya*-type shares the following characteristics: (1) number of syllables; (2) stem in *-a-*; (3) case markers, with the exception of the nominative singular.[248] Peyrot (2008: 101) further claimed that the disyllabic nouns of the *wṣeñña*-type could have had variants for the nominative singular, although they are not attested. Later, Peyrot (2012) changed his view, claiming that the *wṣeñña*-type did not develop a nom. sg. form in *-o*, because it consisted of disyllabic nouns.

Although I agree with this modified view, it is for my investigation not needed to split the *wertsiya*-type into two subclasses: this distinction is secondary, and it is not relevant for the reconstruction. Instead, I will analyse this inflectional type from an Indo-European comparative perspective, trying to reconstruct the PIE source from which the nouns of this

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[247] Winter (1989) grouped the *arṣāklo*-type and the *wertsiya*-type in a single inflectional class. See Peyrot (2012: 190) for criticism.

[248] The only substantive this explanation cannot account for is TchB *peñiyo* ~ *-ya* 'splendor, beauty', which, according to Peyrot (2008: 100), is attested in a fragmentary archaic text (AS12K b4) in the variant *peñiyo*. However, Peyrot and I now believe that a reading *peñiyā* (archaic form for classical *peñiya*) cannot be excluded, though the line is very fainted.

type come. Therefore, with the single label "*wertsiya*-type", I will refer to both Peyrot's *wertsiya*- and *wṣeñña*-types.

3.7.3.1. Members of the *wertsiya*-type

Only a few nouns can be counted in this class. From a derivational point of view, they are formed by means of various suffixes, and can be presented as follows:

(1) TchB -*ḷya*, TchA -*ḷyi*: TchB *emaḷya*, A *omḷyi* 'heat', TchB *kaccaḷya* 'joy';
(2) TchB -'*eñña*, TchA -'*eṃ*: TchB *weśeñña* (~ -*o*), A *waśeṃ* 'voice', TchB *wṣeñña* 'dwelling place';
(3) TchB -*oñña*: TchB *ścmoñña**, A *śmoññe* 'place';
(4) TchB -*auña*: TchB *katkauña* 'joy', TchB *läk̬utsauña* 'light', TchB *wrauña* '?';
(5) TchB -*ya* /-(ə)ya/, TchA -*i*: TchB *atiya**, A *āti* 'grass' (?), TchB *arśakärśa* 'bat', TchB *kremīya* '?', *krorīya** 'horn', TchB *newiya* 'canal', TchB *peñiya*, A *pañi* 'splendor', TchB *poṣiya*, A *poṣi* 'wall, side', TchB *ploriya** a wind instrument, TchB *preściya* 'time, occasion', TchB *śkwarya* 'creeper', TchB *yoñiya*, A *yoñi* 'path, track', TchB *wertsiya*, A *wartsi* 'council, gathering, assembly'.

I will deal with each member of this class. First, I will consider the nouns of the first four groups, while those of group (5), which is also the most productive, will constitute a separate section.

3.7.3.2. Analysis of the suffixed nouns

The derived abstract nouns ending in TchB -*ḷya*, TchA -*ḷyi* can be interpreted as substantivised feminine adjectives. A clear example is TchB *emaḷya*, A *omḷyi* 'heat'. From a formal point of view, this abstract noun is the expected feminine form of the adjective TchB *emalle*, A *omäl* 'hot', which does not attest a feminine inflection either in Tocharian A or in B. We can therefore reconstruct for Proto-Tocharian an adjective **æməllæ* (m.), **æməĺĺa* (f.) 'hot', from which the feminine form has been substantivised as an abstract noun, 'hot' → 'the hot one' → 'hotness' (see Pinault 2017a for the etymology of the adjective). The noun TchB *kaccaḷya** 'joy' (attested twice as a perlative singular in AS16.5 a3 and B520 a3) can be analysed in the same way, by reconstructing an adjective *kaccalle** 'joyful' (gerundive of TchB *katk*- 'to rejoice, be glad', cf. also *ka(cca)lñ(e)ne* in NS29 a3).

On the other hand, TchB *wṣeñña* 'dwelling place' and TchB *weśeñña*, A *waśeṃ* 'voice' are abstract nouns from the verbal roots TchB *wəs*- 'to dwell' and from the noun TchB *wek*, A *wak* voice' < PIE **u̯okʷ*- (cf. Lat. *vōx*, Skt. *vā́c*-, OAv. *vāxš* [nom.sg.], Gk. **ŏψ*, etc.), respectively. The palatalisation of the stem in these derived forms is problematic. Pinault (2012: 190) assumes that both substantives were originally feminine agent formations in **-ēn-ih₂* > **-'æñña*, reanalysed as abstract nouns under the influence of the common abstract suffix TchB -*(äñ)ñe*. Otherwise, one can assume an old thematic derivative from

which an *ñe*-adjective was built and then substantivised (Kim 2007: 19 fn.30), but then the origin of the palatalised stem would be left unexplained (perhaps the palatalisation comes somehow from the verb; cf. also TchB *aiśeñca* from *ayk-* 'to know', TchB *keṣṣeñca* from *kəs-* 'to extinguish', TchB *ñäṣṣeñca* from *ñəsk-* 'to desire', etc.).

As regards TchB *ścmoñña* 'place', Pinault (2012: 190) reconstructs a secondary derivative in *-ñña* from an action noun *ścəmå (< *stem-eh₂?), itself derived from the verbal root TchB *stəma-* 'to stand' (see Winter 1962a: 27 for the reconstruction of the root). However, one may reconstruct also a derivative of the preterite stem |ścəma|, thus *ścəma-œñña > TchB *ścmoñña* (Peyrot 2010: 72).

From the aforementioned root TchB *katk-* 'to rejoice' we have also TchB *katkauña* 'joy' (older *katkewña*), probably based on an unattested adjective *kātke** 'joyful' or a derived noun PTch *katkœy (cf. TchA *kācke* 'joy, happiness'; see §3.6.1.2). The suffix *-auña* is merely a feminine variant of the well attested abstract suffix *-auñe* (Pinault 2012: 190).[249] The second noun with the suffix *-auña* is TchB *läkᵤtsauña* 'light' (older *läkᵤtsewña*). It is matched in Tocharian A by *lukśone* 'id.' (probably reshaped for *luktsone after *lᵤkäśnu* 'shining', as per Georges-Jean Pinault apud Malzahn & Fellner 2014: 70 fn.31). The basis of these nouns is the adjective TchB *lakᵤtse* 'shining' (cf. also the noun TchA *lkäś* 'light').[250] However, the abstract suffix TchA *-one* is usually matched in Tocharian B by *-auñe*. There are two ways to account for this incongruity. One option is that PTch **-awñœ* is the older form and Tocharian A has preserved the archaic situation. Otherwise, one could claim that PTch **-awña* first developed to Pre-TchA **-on* and then was remarked under the influence of TchA *-one*. Nonetheless, the occasional attestation of the feminine variant TchB *-auña* may also be explained by appealing to an analogical influence after the formations in pl. *-auna* (like TchB *krentauna* 'virtue(s)').[251]

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[249] If of Tocharian origin, this suffix can derive from the weak stem of the heteroclitic suffix PIE suffix**-ur/n* (see recently Pinault 2011a). As pointed out by Kim (2007), in some Middle Iranian languages we find continuants of a similar suffix, cf. Sogd. *-ōni-*, Khot. *-auña-* / *-oña-* / *-ūña* (see Emmerick apud Emmerick & Skjærvø 1987: 16 and Degener 1989: 160). Since the Iranian suffixes share both formal and semantic similarities with the Tocharian one, it is possible that one language borrowed from the other (Kim assumes that Tocharian borrowed from Iranian).

[250] See Malzahn & Fellner (2015: 71). Apparently, TchA *lkäś* 'light' is a hapax legomenon attested in A249 a2. As Michaël Peyrot (p.c.) pointed out to me, one cannot rule out the possibility that this *lkäś* is misspelled for *lᵤkäś* (cf. TchA *lᵤkäśnu* 'shining' and the variants of *pᵤkis ~ pkis*, the genitive of TchA *puk* 'all, every').

[251] Formally, TchB *wrauña* may belong here. It is a hapax legomenon attested in B28 b4. Most of the Tocharian dictionaries and lexicons (e.g. DTB: 673; Poucha 1955; Thomas 1964) assume that we are dealing with a sort of talking bird. This meaning has been suggested by Sieg & Siegling, who were the first translators of the fragment. The first part of line b4 runs as follows: (*k*)ᵤ(*se*) *parśi-ne ksa tuk sū weṣy entwe mäkte ramt wrauña* "Wer immer ihn fragen sollte, genau dasselbe sagte er dann, gleich wie eine Prediger-Krähe (?)" (Sieg & Siegling's translation 1949: 47). The translation of *wrauña* as 'Prediger-Krähe' has rapidly been accepted by most of the scholars and it has been confirmed by Krause (1951a: 199), who suggested an etymological connection with Balto-Slavic, cf. Lith. *várna*

3.7.3.3. Analysis of the nouns in TchB *-iya*, A *-i*

In this section, I will investigate the origin of the productive group of derivatives in TchB *-iya*, A *-i*. As far as the form is concerned, one is tempted to connect the suffix with PIE *$-ih_2$, and in what follows I will attempt to prove that this connection is correct. As is well known, however, two different formations in *$-ih_2$ can be reconstructed for Proto-Indo-European. They are usually named with Indian terms, the *devī́*-type and the *vr̥kī́*-type.[252] These two reconstructed formations shared some formal and semantic features, but they also had several differences. It is therefore worth recalling their functions before proceeding further.

As noticed above (§3.5.1.2), the *devī́*-type inflected proterodynamically, with an unmarked nominative singular. It was used to form feminine nouns from athematic stems, including *i- and *u-stems. For this reason, we find continuants of the *devī́*-suffix in the feminine inflection of both the *nt-participles and the perfect participles in several Indo-European languages, including Indo-Iranian and Greek. The main functions of the *devī́*-suffix are (Pinault 2014; Fellner 2014a):[253]

(1) forming possessive endocentric derivatives (e.g. Gk. μέλισσα 'bee' ← 'provided with honey' from μέλι, -τος 'honey; Gk. γλῶσσα 'tongue, language' ← 'provided with a peak' from γλῶχες 'beard of a corn');

(2) deriving oppositional feminine nouns from masculine ones (e.g. Ved. *jánitrī-* 'genitrix' from *jánitar-* 'genitor');

(3) forming verbal and nominal abstracts (e.g. Gk. φύζα 'flight, panic' from φεύγω 'to flee, escape'; Ved. *śacī́-* 'power' from *śakrá-* 'powerful').

'crow', OCS *vrana*, Russ. *voróna*, etc. Adams (DTB: 673) goes a step further, as he proposes that TchB *wrauña* means 'myna (*Acridotheres tristis*)'. However, there are problems with such a connection from both a phonological and a semantic perspective. First, the Tocharian word cannot be the exact match of the Balto-Slavic forms. Van Windekens (1976: 583) suggested that the Proto-Tocharian outcome of a zero grade *$u̯r̥n$- was suffixed by *$-auña$, with an evolution *$wərn-auña$ > TchB *wrauña* after dissimilation of the two nasals. I find this solution very improbable, especially because the suffix *-auña* is not productive and clearly forms abstract nouns. Furthermore, the reconstruction of a root *$u̯or$- on the basis of the Balto-Slavic evidence has been dismissed by Kortlandt (1985a: 121) and Derksen (2015: 490f.). They believe that the PIE root *kor- (Gk. κόραξ 'raven', Lat. *corvus*) was replaced by *wor- in Balto-Slavic. In addition, as far as I can evaluate, Sieg & Siegling's proposal is not supported by parallel passages (Sieg & Siegling put in fact a question mark after the alleged meaning of *wrauña*). Since we therefore lack any direct evidence for translating TchB *wrauña* properly, I consider the meaning of the word unsettled, just like the question of a possible etymological connection with the proper name TchB *Wrau* attested several times in secular documents.

[252] I agree with Pinault in reconstructing both suffixes for Proto-Indo-European. On the value of the laryngeal for the *vr̥kī́*-type, see Pinault (2014).

[253] Functions (2) and (3) can be interpreted as an extension of function (1), which is to be considered as the original one.

As the *devī́*-type, also the *vr̥kī́*-type mostly formed feminine nouns, but from both nominal and adjectival thematic stems. A few masculine nouns occurred as well (e.g. Ved. *rathī́-* 'charioteer').[254] Furthermore, it is reconstructed with no ablaut. As already pointed out by Lohmann (1932: 69), the original meaning of the suffix was affiliation ("Zugehörigkeit").[255] Its main functions are (Rau 2007; Fellner 2014a):

(1) forming possessive exocentric derivatives, i.e. "genitival", as they are sometimes also named (OCS *sǫdii* 'judge' ← 'pertaining to the vedict' from *sǫdъ* 'verdict, court'; Ved. *rathī́-* 'charioteer' ← 'pertaining to the chariot' from *rátha-* 'chariot');

(2) deriving oppositional feminine nouns from masculine ones (Ved. *vr̥kī́-* 'she-wolf' from *vŕ̥ka-* 'wolf'; Ved. *arāyī́-* 'evil (female) spirit' from *árāya-* 'evil spirit');

(3) individualising formations (things or entities with the characteristic of the basic form), mostly from thematic adjectives (typically from colour or material terms, e.g. Ved. *kr̥ṣṇī́-* 'night' from *kr̥ṣṇá-* 'black'; ON *reyðr* 'rorqual' from *rauðr* 'red').

Let us now look at the Tocharian nouns of the *wertsiya*-type in light of the semantic patterns and the derivational mechanisms of the two suffixes *-ih₂.*[256]

In my opinion, three nouns can be analysed as old derivatives of the *vr̥kī́*-type. They are: TchB *peñiya*, A *pañi*, TchB *wertsiya*, A *wartsi*, and TchB *preściya* (cf. the underived noun TchA *praṣt*).

The comparison between TchB *peñiya* 'splendour' and TchA *pañi* 'id.' allows us to reconstruct a common ancestor PTch **pæñǝya.* Possible Indo-European connections are difficult to find. Following Van Windekens (1976: 346f.), Adams (DTB: 423) argues that PTch **pæñǝya* could come from **(s)pen-d-* 'to shine, glitter', a root otherwise attested only in Baltic, e.g. the verb Lith. *spindéti* 'shine' (cf. also *spingéti* 'id.', Derksen 2015: 421), the noun Lith. *spindà* 'splendor', etc. Cognates from other Indo-European languages are however missing and the Baltic root is itself problematic. On the other hand, Beekes (2010: 1546)

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[254] Pinault (2014: 274) claims that the *vr̥kī́*-derivatives do not show any specialisation of gender, except for the fact that they are animate. Although masculine nouns are equally attested, the bulk of the *vr̥kī́*-derivatives is of feminine gender (Macdonell 1910: 269 lists only 11 masculines).

[255] It should be noted that the exact value of the laryngeal in the *vr̥kī́*-suffix is still at issue (some scholars have recently reconstructed the suffix as *-ih₂*, see mainly Widmer 2005 with references). Also the relation between the *vr̥kī́*-suffix and the *devī́*-suffix has been the topic of debate. Some scholars, like Olsen (2000: 402), derive the former from the latter, while some others, like Stempel (1994: 205), have the exact opposite view. I assume that Proto-Indo-European already had both suffixes fully formed (cf. the discussion in Pinault 2014 with references).

[256] I will not discuss nouns that are too uncertain or otherwise useless from a historical perspective. This is the case of TchB *newiya* (probably a loanword from Iranian, cf. DTB: 364), TchB *atiya**, A *āti* (because of the unexpected lack of palatalisation), TchB *śkwarya* 'creeper' (etymology unknown), TchB *ṣaiweñña** (see Winter 2003), and TchB *śantālya* 'shepherd (?)' (unclear derivation; cf. Adams 2009a: 5-6; Ching 2015: 46).

has linked the Tocharian words with the productive PIE root *b^heh_2- 'to shine, appear' (Gk. φαίνω 'to make visible', Skt. *bhā́ti*-, etc.). From a comparative perspective, this root is well attested in nominal derivatives, usually followed by a nasal suffix, like in Ved. *bhānú*- 'beam of light', YAv. *bānu*- 'id.' < *b^heh_2-nu- or Skt. *bhā́na*- 'das Leuchten, Erscheinung' < *b^haH-ana- (?), OIr. *bán* 'white' < *b^he/oh_2-no-. However, these derived protoforms cannot historically account for the Tocharian substantives. One could toy with the idea of loss of the laryngeal in *b^hoH-no- > *b^ho-no- > PTch *pænæ- 'shining', but this is very speculative. Despite these problems, the vowel correspondence TchB -*e*- : TchA -*a*- may be used as a tip to reconstruct a derivative of the *R(*o*)-(*o*)-type (of either the τόμος-type or the τομός-type), which was very productive in Tocharian (see Malzahn 2012). If so, an old *vr̥kī́*-derivative from this hypothetical form works fine, because it would have been regularly derived from a thematic formation, i.e. *pænæ → *pæñəya.[257]

Similar considerations are possible for TchB *wertsiya*, A *wartsi* 'council'. Again, the vowel correspondence between Tocharian A and B allows us to reconstruct a form with *o*-vocalism in the root. If Adams (DTB: 665) is right in setting up a connection with PIE *$(H)u̯erd^h$- 'to grow' (LIV²: 228), then we may reconstruct a noun *$(H)u̯ord^ho$- 'growth (in time and space)', from which a derivative in *-ih_2 'pertaining to growth' → 'mass' would have regularly evolved PTch *wærtsya 'group, reunion' > TchB *wertsiya*, A *wartsi*.[258]

Another noun that may be traced back to the *vr̥kī́*-type is TchB *preściya* 'time, occasion'. It has no direct match in Tocharian A, where we find the underived noun TchA *praṣt* 'id.' instead. These two words clearly differ in their derivation.

The Tocharian A noun has been linked with Germanic, cf. OHG *frist* 'period of time', OE *first* 'id.', ON *frest* 'delay' (Pinault 2008: 203; Hartmann 2013: 465-6). It is possible that they come from the PIE root *$steh_2$- 'to stand' (NIL: 637 and 646), prefixed with *pro- 'beyond, forward' (cf. also Skt. *prastha*- 'elevated land' (late) or Skt. *pratiṣṭhí*- 'resistance', MIr. *ros* 'wood, height' < PCelt. *frosto-, Matasović 2009: 142). To this list we can add TchA *praṣt* 'time', as if from PIE *pro-stH-o- > *prosto- , i.e. "what stand beyond" → "time" (Pinault 2008: 203; cf. also Lat. *postis* 'door-post', OHG *fast* 'firm, fixed'). In Proto-Tocharian, a feminine derivative was created, which may originally have had a slightly different meaning from *præstæ- < *prosto-, probably 'season' (← 'pertaining to time', cf. e.g. *smāyana preściyaṃts* 'of the summer seasons' = Skt. *grīṣmasya* 'of the summer', Ogihara 2011: 129).

Finally, Pinault (2014a: 207f.) has recently attempted to take the hapax legomenon TchB *arśakärśa* 'bat' (= Skt. *maṇḍilya*, B549 a6) as a *vr̥kī́*-derivative. This word looks like an indigenous Tocharian compound. Pinault interpreted the first member *arśə*° as a cognate

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[257] On the reconstruction of a Sievers' variant of the suffix *-ih_2 in these nouns, see Hilmarsson (1987a: 91).

[258] From a comparative perspective, the exact reconstruction of this root is notably difficult, as the following derivatives show: Skt. *ūrdhvá*- 'straight, upright', YAv. *ərəδβa*- 'raised up', Gk. ὀρθός 'straight, upright', OCS *rodъ* 'genus, birth' (IEW: 1167; GEW: II, 415-6; EWAIA: I, 243). The main problem lies in the shape of the first part of the root, since some languages point to the reconstruction of an initial *u̯-, while some others of an initial laryngeal. See recently Barber (2014: 32-36).

of TchB *arkañe** 'darkness', as both referring to the notion of night (but cf. also Carling 2004 and Adams 2016a). The second member °*kərśa* can be historically analysed as a *vrkī́*-derivative of the thematic noun **kur-ko-*, designing young or little animals (cf. Hitt. *kūrka-* 'colt, foal', the Iranian nouns MP *kwlk'*, NP *kurra*, Ossetic *kur* < PIr. **kurna-*, and probably some other derivatives in Nuristani languages, on which see Hegedűs 2002).

For all remaining nouns of the *wertsiya*-type it is more difficult to reconstruct an original thematic formation from which they could be derived. Sometimes, however, the underived base is still attested in Tocharian A. Examples include: TchB *kroriya** 'horn (?)' vs. TchA *kror* 'crescent of the moon'; TchB *poṣiya** 'wall', A *poṣi* 'side' vs. TchA *posac* and *posaṃ* 'below, next to'; TchB *yoñiya*, A *yoñi* 'path, zone' vs. TchA *yoṃ* 'trace'. As we will see, the evidence of these underived formations is of particular importance to the diachronic analysis of the nouns.

The hapax legomenon TchB *kroriya** 'horn' (B580 b4) is derived from the Proto-Tocharian antecedent of TchA *kror* 'crescent of the moon'. So far, two etymological proposals have been put forward. Hilmarsson (1985a) argued that TchA *kror* is cognate to Arm. *eľǰewr* 'horn' and Hitt. *karāu̯ar* 'id.', which are said to reflect PIE *gʰreh₁-ur. Although this derivation works formally fine for Tocharian, it relies heavily on the supposed strength of the etymological connection with Armenian and Anatolian. However, neither Arm. *eľǰewr* 'horn' nor Hitt. *karāu̯ar* are self-evident continuants of PIE *gʰréh₁-ur. Indeed, the palatalised consonant -*ǰ*- in Arm. *eľǰewr* cannot be the outcome of the velar *gʰ (see Pisani 1950 and Scala 2003; the noun is not discussed by Martirosyan 2010), while for Hitt. *karāu̯ar* an etymological connection with PIE *gʰréh₁-ur is openly rejected by several scholars (e.g. Rieken 1999: 349 fn. 1722; Kloekhorst 2008: 446f.). Thus, the reconstruction of a PIE noun *gʰréh₁-ur 'horn' is fragile.

On the other hand, Adams (1991: 5-7) connects TchA *kror* with the Indo-European word for 'horn', PIE **ḱer-*. This root noun has been the subject of an exhaustive investigation by Nussbaum (1986), who also commented on most of the derived Indo-European forms. One of these formations is a heteroclitic paradigm with nom.sg. **ḱr̥h₂sr̥*. Starting with this reconstructed form, Adams claims that a final **-u* has been added in Tocharian, which in turn caused *u*-umlaut of the root vowel PTch **-a-* < **-h₂-*, thus * *ḱr̥h₂sr-u* > **k(ə)ra(s)ru* > *kroru > TchAB *kror*(°). However, there is no evidence that *u*-umlaut has affected internal PTch **-a-* (Hilmarsson 1986: 21f.; Ringe 1996: 98-9). Thus, other possibilities need to be investigated.[259]

Kloekhorst (2008: 446-7) argues that the heteroclitic paradigm of Hitt. *karāu̯ar*, *karaun-* 'horn, antler' originated from the PIE basic stem **ḱer-* 'horn' (Nussbaum 1986: 1-18). He therefore posits PIE **kr-ó-ur/n-* for Hittite. As we have already seen (§3.6.1.2), there are strong indications that the sequence **-ur#* is reflected as a metathesised **-ru#* in Tocharian. If Tocharian inherited the same heteroclitic paradigm reconstructed by Kloekhorst for Hitt. *karāu̯ar*, then it should have regularly evolved as follows: *ḱr-ó-ur >

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[259] See also Kim (2019a: 145 fn.12) for additional criticism to Adams' etymology.

*ḱr-ó-ru > *krǽru and finally TchAB kror(-) after u-umlaut and apocope of *-u. Otherwise, if Melchert (1994: 86, 2014) was right in reconstructing PIE *-eh₂-ur for the Hittite suffix -āu̯ar, then TchAB kror(-) may also be from PIE *ḱreh₂-ur.[260]

At any rate, there is no doubt that TchB kroriya* is derived from the ancestor of TchA kror. It may be ultimately analysed as the outcome of a devī́-derivative with an original endocentric meaning 'pertaining to the horn'.

Next to TchB kroriya*, there is another noun that may be derived from an heteroclitic formation, i.e. TchB ploriya*. According to Pinault (1994: 188f.), this noun refers to a kind of wind instrument, probably a flute (cf. also the derivative TchB ploriyatstse* 'musician, flutist'). The obl.pl. TchB ploriyaṃ (in THT1104 a4) seems to correspond to Skt. vāditra- 'music instrument; instrumental music' (MW: 940) in a passage of the Karmavācana (Schmidt 2018: 97; cf. also Hannes A. Fellner & Theresa Illés apud CETOM: s. THT1104). Pinault is surely correct in seeing here a descendant of either PIE *bʰelH- 'to roar' or *bʰleh₁- 'to blow'. However, the type of derivation involved is unclear. Adams (DTB: 463) works with the second root and posits *bʰloH-ru-i̯eh₂, but in my opinion this protoform could not have evolved in ploriya, but should have given *plāriyo instead. On the other hand, Pinault (2008: 385 fn.11) claims that TchB ploriya* represents "l'elargissement d'un nom d'action *plor 'bruit, son' < *plǽwär ou *plǻwär". Although PTch *-w(ə)r is easily derivable from the PIE heteroclitic suffix *-ur/n, I cannot understand the first part of either of the two forms. On the one hand, if PTch *plǽ- is the outcome of *bʰleh₁- > *bʰlē-, then I would expect palatalisation of the lateral, thus *pĺǽwr > TchB *plyor-. On the other hand, I cannot envision any protoform from which PTch *plǻ- would have come. It is well known that Pre-PTch *-w- is usually lost between vowels. If we therefore reconstruct the Pre-PTch suffix as *-u̯or, instead of *-ur, we could say that the vowel -o- in TchB plor-iya originated after contraction: *bʰloH-u̯or > *bʰlōu̯or > PTch *plǻr > TchB plor° (just like *kʷrih₂-u̯or > *kʷryawǽr > TchB karyor 'trade'). Otherwise, a last possibility involves the reconstruction of a metathesised protoform *bʰleh₁-ur > *bʰleh₁-ru-, which yielded * pĺǽru- > PTch *pĺǻru through u-umlaut, and then *pĺǻrəya >> TchB ploriya (with depalatalisation of *-ĺ- for dissimilation with *-y-?, cf. TchA klyokäś vs. TchB klokaśce 'pore; opening of the body'; furthermore, I have found no instances of a sequence plyo /pĺo/ in Tocharian B). From a semantic point of view, the noun *pl⁽ʲ⁾or- should have meant 'sound', while the derivative TchB ploriya underwent the semantic evolution 'having sound' → '±flute' (Pinault 2008: 385).

The selection of the r-stem instead of the n-stem in the derivational developments discussed above closely resembles the pairs Ved. pī́varī-, Gk. πίειρα 'fat, fertile' vs. Ved. pívan- 'fat', Gk. πίων 'id.' as both derived from PIE *piH-ur, -uen- (cf. Gk. πῖαρ 'fatness'). As

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[260] TchAB kror(-) cannot be from PIE *ḱrh₂-u̯or because the laryngeal was lost in this position (cf. *prH-u̯ó- > PTch *pərwæ > TchB parwe '(at) first', A pärwa-t 'eldest'). On the correspondence TchB -o- : TchA -o-, see Burlak & Itkin (2003). Van Windekenes (1976: 236) reconstructs *krēru, which may be from an older *kreh₁-ur (cf. Lat. crēscō 'to grow').

pointed out by Fellner (2014a: 70-1), external derivatives usually select the strong stem, while internal derivatives usually select the weak stem.

The next word to be discussed is TchB *poṣiya**, A *poṣi*. These nouns slightly differ in their meaning: indeed, TchB *poṣiya* usually means 'wall', while TchA *poṣi* seems to have the more general meaning 'side' (Barbera 2000: 235f.), since it can refer to (1) the "sides" of human beings (e.g. A320 a3), (2) the "sides" of an animal (e.g. A12 b4), or (3) the "sides" of a house, i.e. its walls (e.g. A8 a3). These nouns must be derivations of a third noun. Evidence for this third noun comes from Tocharian A, where we find TchA *posaṃ* and TchA *posac* as postpositions governing both the genitive and the oblique (Meunier 2015: 345-6). There are two clues that allow us to reconstruct these postpositions as original nominal inflected forms. First, the fact that they govern the genitive is unusual. Indeed, as Carling (2000: 368 and 399) pointed out, the genitive as a governed case usually refers to living beings or abstract concepts. Second, an isolated form TchA *posā* is attested in A146 a5 *kᵤli tāṣ śālyās posā* "if a woman is at the right side". If Winter (1985a: 584-5) is wrong in reconstructing haplology for *poṣṣāsa*, then TchA *posā* can only be the perlative singular of an unattested noun TchA *pos**. One may therefore claim that inflected forms of TchA *pos** underwent a process of grammaticalisation, since they first became relational nominals and subsequently postpositions.

Several etymological proposals have been made for TchB *poṣiya*, A *poṣi*, and TchA *pos**.[261] The most solid is the one by Fraenkel (1932: 229), who connected the Tocharian words with Lith. *pùsė*, Latv. *puse*, OPr. *pausan*, *pauson* 'côte, moitié'. The common ancestor of these nouns is reconstructed with an ablauting paradigm **poṷs-*, *pus-* '± half' (Fraenkel 1962: 676). It could therefore be argued that Lithuanian and Latvian continue the zero grade, and Old Prussian and Tocharian the full grade. Otherwise, the Tocharian word could come from the PIE root **peh₂-* 'to protect' (Skt. *pā́ti*, Av. *pā-*), which is attested with an *s*-extension in several Indo-European languages (Hitt. *paḫš-* 'to protect', Lat. *pāstor* 'to herd', OCS *pasti* 'to pasture'). The original meaning of TchA *pos** could have been 'what protects' → 'wall', and then the derivatives in *-iya* 'pertaining to the wall' → 'side (of humans, animals, and things in general)'. But this latter option is not entirely convincing.

There is another noun belonging to this class that attests (Tocharian) *o*-vocalism in the root. It is TchB *yoñiya*, A *yoñi* 'path, zone'. Again, Tocharian A shows continuants of the underived noun, TchA *yoṃ* 'trace, footprint'. If not a loanword from Iranian (cf. Khot. *gyūna-* 'gait, course, time', see Isebaert 1980: 142), the most straightforward comparison would be with Lat. *iānus* 'passage' (old *u*-stem) and *iānua* 'door' (Van Windekens 1976: 604). Accordingly, Latin and Tocharian would both continue an *n*-derivative of the PIE

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[261] See Couvreur (1947: 11 fn. 14) and Klingenschmitt (1994: 313) for yet other proposals, none of which is phonologically satisfactory. See also Tremblay (2005), who improbably assumes a loanword.

root *$i̯eh_2$- 'to go', still attested in TchA *yoṃ*, while TchB *yoñiya* and TchA *yoñi* would be derivatives in -*ya* of this noun (with the meaning 'having traces' → 'path, caravan').[262]

The last noun to be discussed is TchB *kremīya*, a hapax legomenon attested in W5 a6 as a nominative singular. The meaning of this word is not easily detectable. For this reason, Filliozat (1948) and Broomhead (1962) do not translate it, while Adams (DTB: 234) only says that it would designate a plant part. The etymology of the term has not been ventured yet. Sometimes however understanding the etymology of a term can shed new light on its meaning.

The noun is attested in the following line: W5 a6 /// -*re · erkäntse yasoñña kremīya · tsäṅkacca pyāpyo · śärt* (new transcription by Michaël Peyrot, p.c.). This fragment is very difficult to translate, since it contains a number of hapax legomena. The only noun that can be translated with confidence is *pyāpyo* 'flower'. TchB *tsäṅkacca*[263] may be derived from *tsaṅk** 'naked barley', and it seems to be an adjective in agreement with *pyāpyo*, thus 'flower of naked barley, spike (?)'. However, one has to note that the ending -*cca* is unexpected, since -*tstsa* would be the regular nom.sg. form (but cf. possibly nom.pl.f. *motarcca*(*na*) 'green' in THT1121 a3; see Schmidt 2018: 108). On TchB *erkäntse* and the possible reconstruction of a noun *erk(ə)** 'decoction (?)', see Carling (2003: 89, 2004; *contra* DTB: 100). Finally, TchB *yasoñña* might be derived from the noun TchB *yāso* 'desire, passion'.

Since the fragment contains a list of medical ingredients, TchB *kremīya* may indeed designate some kind of plant, as Adams proposed (DTB: 234).

Now, if we look at TchB *kremīya* in the light of the nouns discussed so far, we can safely leave the element -*iya* out from our historical discussion. This TchB *krem(e)°* has no clear formal match in Tocharian, though it is not completely isolated. Indeed, another comparable item might be *kremot*, attested in W37 a3: *tsikallona kremotsa āśne ya*(*maṣä*)*lle* "… are to be shaped; it is to be applied to the head with *kremot*" (cf. Filliozat 1948: 87). To my knowledge, Adams (DTB: 234) provides the only etymological attempt for TchB *kremot*. He does not point to the formal similarity with TchB *kremīya*, since he analyses TchB *kremot* as a compound of °*mot* 'alcohol' and *kare*° /kə́re/, a term that is usually translated as 'rank, dignity' (Adams) or 'good' (Winter 1968: 61; Hilmarsson 1996: 84). However, both 'alcohol of the dignity' and 'good alcohol' do not make any sense in this passage.

Formally, the protoforms from which TchB *krem*° may derive can be summarised by the two following notations: *$Krom$-, *$Kreh_1m$-, where *K may represent any velar stop. I have therefore checked for Indo-European forms matching one of these protoforms and I

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[262] One may also claim that TchA *yoṃ* 'trace, footprint' is the exact counterpart of Lat. *iānus*, as if both reflecting *$i̯eh_2$-*n-u-*. If so, TchB *yoñiya* would regularly derive from *$yånẃ$-ya > *yoñiya* (with *$ẃ$ > *y*) and TchA *yoñi* would have been borrowed from Tocharian B

[263] Broomhead (1962: I, 7) read *tsäṅkana*, which is impossible. On the other hand, Filliozat (1948: 66) read *tsäṅkantä*, which is the accepted reading (cf. DTB: 803; Blažek & Schwartz 2017: 62; Ching 2016: 55). This form is usually interpreted as a variant plural of the regular *tsäṅkana* (see also Ching 2010: 384). In any case, however, this *tsäṅkantä* is a mistake, since *tsäṅkanta* would be expected.

found a straightforward correspondence in Gk. κρόμμυον 'onion', with variant forms κρόμυον (Hom.) and κρόμβυον (pap.) (Chantraine 1999: 586; GEW: II, 23-24), MIr. *crem* '(wild) garlic', W *craf* 'id.', OE *hramsan* 'ramsons' (pl.) (Kroonen 2013: 242-3), Lith. *kermušẽ* 'wild garlic', OCS *črěmošъ* 'ramsons', Russ. *čeremšá* 'Allium garlic' (IEW: 80-1; Derksen 2015: 239-40), Yazghulami *gamš* 'wild onion', Tajik *kamč* 'Allium rubiginosium' (Steblin-Kamenskij 1982: 73). Greek and Germanic point to **krom-*, while Celtic and Balto-Slavic point to **krem-*. If Tocharian belongs here, as I think, TchB *krem°* could be ranged under the first group, as continuing PIE **krom-*. The original Proto-Tocharian formation from which TchB *kremīya* is derived is however unknown. Some of the forms just mentioned point to an extension in **-us-*, while some others do not attest any direct medial **-u-*.[264]

One may therefore wonder whether TchB *kremīya* and TchB *kremot* denote something linked to garlic or onion. As noticed above, the fragments where both words are attested are of medical content and therefore plants names are expected to be found. But unfortunately, it is hard to say which of the two meanings is correct. Indeed, neither the word for 'garlic', nor the word for 'onion' is attested in Tocharian. However, if TchB *kremot* has been correctly identified as a compound of *krem** (or the like) and *mot*, then a meaning 'garlic-based alcohol' is of course possible. A liquid brew based on garlic is widely used in Āyurvedic medicine. It is known as the Skt. *laśunādi*, a sort of garlic oil. Although several types of this composite herbal drug-oil are attested, the *laśunādi ghṛta* (attested in the seventh century's *Aṣṭāṇga hṛdaya*) is prescribed for neurological disease and thus seems to fit well in the context of the document (if so, "...are to be shaped (and) to be applied to the head with the *laśunādi*"). Returning to TchB *kremīya*, we can therefore conclude that it might mean both '±garlic plant' (if a noun) or 'pertaining to garlic' (if an inflected feminine adjective).[265]

3.7.3.4. Summary

To sum up, we have seen that the bulk of the members of the *wertsiya*-type can reflect formations in **-ih₂* of both the *devī́-* and the *vṛkī́-*types. Although the Indo-European comparison is either ambiguous or too meagre to ascertain the derivation of some of the *wertsiya*-nouns, it has become clear what the derivational processes involved were. An important analytical tool to investigate the nouns of the *wertsiya*-type has been the reconstruction of possible underlying underived formations. In some cases, Tocharian A clearly attests the noun from which a *ya*-derivative has been formed. One can assume that the formal and the semantic division between the *devī́-* and the *vṛkī́-*types became increasingly opaque in the history of Tocharian. The result of this process has implied that

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[264] If TchB *krem°* is from **kromus-*, then the lack of *u*-umlaut would be surprising. But one may also invoke analogy after other case-forms without **-u-* in the paradigm.

[265] Actually, a last possibility can be ventured. Indeed, if one interpreted TchB *kremiya* and TchB *kremot* as attesting two different bases, one could analyse TchB *kre-* in *kremot* as a loanword. The best formal match would be with Khot. *gūra-* 'grapes'. If so, *kremot* could be translated as 'wine (lit. grapes-alcohol)'.

these inherited formations have influenced each other, before they finally merged into a single category. As a matter of fact, this is not an isolated development, since the same formal and semantic merger of the *devī́-* and the *vṛkī́-*type can be discerned in several other Indo-European languages and branches (see e.g. Cardona 2003: 161 for Indian, Johnsen 2005 for Germanic, and recently Piwowarczyk 2016: 115f. for Latin).

3.8. THE EVOLUTION OF THE PROTO-INDO-EUROPEAN NEUTER IN TOCHARIAN
A HISTORICAL AND TYPOLOGICAL OVERVIEW

This section is aimed at clarifying how the PIE neuter gender evolved in Tocharian and to what extent it has been continued as the Tocharian *genus alternans* in the inflection of the noun. Much attention will be paid to the development of the thematic neuter and to cases of gender fluctuation caused by morpho-phonological mergers with the feminine and the masculine.

The section is divided in two parts: the first analyses the evolution of the neuter singular and the merger with the masculine; the second investigates the evolution of the neuter plural and the merger with the feminine.

3.8.1. THE EVOLUTION OF THE NEUTER SINGULAR

The classification of PIE neuter nouns is based on the shape of the stem. The stem could be thematic or athematic. Thematic are those stems that ended with **-o-*, rarely alternating with **-e-*. From the inflectional point of view, it is well known that the neuter did not mark any difference between the nominative and the accusative. In the athematic inflection, they were zero-marked in the singular. In the plural, thematic and athematic types shared the same ending PIE **-h₂*. The two inflections can be schematised as follows (Melchert 2014; Steer 2014; Lundquist & Yates 2018):

Table III.23. Nominative and accusative in the inflection of the PIE neuters

	ATHEMATIC	THEMATIC
NOM.ACC.SG.	**-Ø*	**-o-m*
NOM.ACC.PL.	**-h₂*	**-e-h₂*

From a diachronic point of view, an important difference between athematic and thematic neuter is that the latter is chronologically more recent than the former.

In fact, several athematic neuters can be reconstructed for the proto-language. They are generally continued as alternating in Tocharian. The absence of formal differences between the nominative and the accusative in PIE is perfectly mirrored in Tocharian, since alternating nouns are limited to Class I, II, and III (nom. = obl.). Examples are numerous (Pinault 2008: 491-97; Hartmann 2013: 523):

TchB *āsta* 'bones' (pl.) < PIE *$Host$-h_2 (YAv. *asti*, Lat. *ossa*)

TchA *waṣt*, B *ost* 'house' < PIE *ueh_2stu- (Skt. *vā́stu*-, Gk. ἄστυ)

TchAB *or* 'wood' < PIE *$doru$- (Skt. *dā́ru*-, Gk. δόρυ, Hitt. *tāru*-)

TchA *ysār*, B *yasar* 'blood' < PIE *$h_1esh_2(ō)r$ (Hitt. *ešḫar*, Skt. *ásr̥-k*, Latv. *asinis*)

TchA *ṣtām*, B *stām* 'tree' < PIE *sth_2mn- (OIr. *taman*, OHG *stam* (adj.), Lat. *stāmen*, Ved. *sthā́man*-)

This short list is purely illustrative and could easily be extended. On the other hand, the reconstruction of the thematic neuters is a difficult task for Indo-European comparative linguistics. Indeed, only a very restricted set of thematic neuters can be traced back to Proto-Indo-European; most of them were developed independently by individual Indo-European languages. Some types are more archaic, even if they are still limited in number. Examples include: PIE *$(H)iugóm$ 'yoke' > Lat. *iugum*, Hitt. *iuka*-, Skt. *yugám*, Gk. ζυγόν; PIE *$pédom$ 'place' > Hitt. *pēdan*, Gk. πέδον, Skt. *padám*; nomina instrumenti in PIE *-$trom$, like *h_2erh_3-tro-m > Lith. *árklas*, Lat. *arātrum* (lengthening based on *arāre* 'to plough'), Gk. ἄροτρον, Arm. *arawr*, MIr. *arathar*; PIE *$u(e)rd^hom$ 'word' > Lat. *verbum*, Goth. *waúrd*, and a few others. Apparently, these reconstructed nouns did not survive in Tocharian.

A related question is therefore where we can find Tocharian continuants of the PIE thematic neuter. If we approach this problem from a formal perspective, the nom.acc.sg. PIE *-om is expected to have yielded nom.obl.sg. PTch *-*æ* > TchB -*e*, A -Ø. There are two classes with this singular paradigm: the *yakwe*-type (nom.pl. -*i*, obl. -*eṃ*) and the *āke*-type (nom.obl.pl. -*e-nta*).[266] In the following paragraphs, I attempt to track down PIE neuter nouns in these inflectional types.

3.8.1.1. The *yakwe*-type

The *yakwe*-type is a productive class of masculine nouns with a differentiated plural nom.pl. TchB -*i*, A -*añ*, obl.pl. TchB -*eṃ*, A -*as* (TEB Class V.1). The origin of this class is generally well understood (TEB §179-180; Adams 1988: 112-3; Pinault 1989: 78-81): the bulk can be traced back to the PIE masculine *o*-stems, as it is made clear by TchB *yakwe*, A *yuk* 'horse' < PIE *$h_1éḱuo$- (m.) itself (Skt. *áśva*-, YAv. *aspa*-, Gk. ἵππος, Myc. *i-qo*, Lat. *equus*, etc.).

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[266] In addition, there is another class with nom.obl.sg. TchB -*e*, A -Ø, whose members point to old thematic neuters. This class may be labelled as the *kante*-type (TchB: sg. -*e*, pl. -*enma*; TchA: sg. -Ø, pl. -*ant*/-*antu*), and it consists of a few numerals (TEB Class II.2). The most prominent member is TchB *kante*, A *känt* '100 (num.)', which regularly comes from PIE *$ḱmtom$ (> Lat. *centum*, Gk. ἑκατόν, Skt. *śatá*- etc.). As pointed out by Winter (1992: 122), the plural formation of these numerals cannot be reconstructed for Proto-Tocharian with confidence, because it seems to be of recent origin in both Tocharian B and A. This is particularly clear in Tocharian B, since TchB *kante* mechanically selected the plural marker on the basis of the number of the syllables of the word (Winter 1992: 120). TchB *yaltse*, A *wälts* '1,000' and TchB *tmāne* ~ *tumane*, A *tmāṃ* '10,000' behave like TchB *kante*, A *känt*. On the other hand, TchB *pkante*, A *pkänt* 'hindrance' has been presumably included into this class for the formal resemblance with TchB *kante*, A *känt*.

From a morphological perspective, Malzahn (2012) showed that many nouns from this class can be ultimately analysed as derivatives of the τόμος-type (e.g. TchB *werke*, A *wark* 'hunt, chase' < *μórǵ-o- 'work'; TchB *kene*, A *kaṃ* < *$g^h\mu$ón-o- 'sound', etc.).

There are, however, some other nouns that do not continue this flourishing type of masculine nouns (TEB §180 p. 130).[267] Klingenschmitt (1994: 316) analyses TchB *yakne*, A *wkäṃ* 'way, manner' as the outcome of a neuter *$\mu eǵ^h$-no-m (cf. OIr. *fén* 'wagon', W *gwain*; see further OHG *wagan* < *$\mu oǵ^h$-no-). In all likelihood, it is the Tocharian A form that has brought him to this reconstruction. Indeed, TchA *wkäṃ* does not belong to the *yakwe*-type, being it an alternating noun with plural form *wäknant* (thus a member of the *āke*-type). Therefore, one may say that this noun was originally a neuter (continued as alternating in Tocharian A) and that it was reinterpreted as a masculine in Tocharian B, as a result of the morpho-phonological merger of masculine and neuter in the thematic paradigm of the singular. A clear case of a PIE neuter noun reinterpreted as a Tocharian masculine is TchB *ere* 'appearance' (obl.pl. *ereṃ*), if correctly identified as the outcome of a neuter *s*-stem *$h_3$eros- (Gk. ὄρος 'mountain', see DTB: 99 and §3.6.1.1).

Another peculiar case that went the other way around is TchB *ṣpane* (pl. not attested), A *ṣpäṃ* 'sleep' < PIE *$s\mu ep$-no-. The Tocharian A noun has two plural variants: TchA *ṣäpnant* (*āke*-type, alternating) and TchA *ṣäpnañ** (*yakwe*-type, masculine, cf. loc. pl. *ṣäpnasaṃ* 'in the dreams' in A78 a1 and A56 b3). Comparative evidence points unambiguously to the reconstruction of a masculine noun (PIE *$s\mu ep$-no-, cf. Lat. *somnus* m. 'sleep, dream', Skt. *svápna* m. 'id.', Av. *x$^\nu$afna*- m. 'id.'; Gk. ὕπνος m. 'id.', OCS *sъnъ* m. 'id.' and Alb. *gjumë* m. 'id.' continue *sup-no-; cf. also OE *swefn* 'dream', which is neuter), which allows us to reconstruct the noun as masculine for Pre-Proto-Tocharian.

There is one further example that may prove the sporadic reinterpretation of thematic neuter nouns as masculine. It is TchB *twere** 'door' (pl. *tweri*), which must be related to the familiar PIE word for 'door', *$d^h\mu$ór-/d^hur- (NIL: 130f.). This root noun has been extended with different suffixes in many Indo-European languages (NIL: 131; EWAIA: I, 764-5; Beekes 2010: 566). Among these derived forms, we find outcomes of a neuter *o*-stem *$d^h\mu$oro- in Skt. *dvā́ra*- 'door, gate, passage', OP *duvara*-, Lat. *forum* 'market place, public space', OCS *dvorъ* 'courtyard', Lith. *dvãras* 'estate, village' (NIL: 131).[268] Indo-European languages do not attest a derivationally similar masculine stem. Based on this comparative evidence, we can therefore argue that TchB *twere** 'door' is the regular outcome of the neuter noun PIE *$d^h\mu$orom and that its masculine gender and inflection are secondary.[269]

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[267] As pointed out by Nussbaum (2017), neuter forms of the type *R(ó)-o- are randomly found (cf. Ved. *rókam* vs. *rókaḥ* 'light', etc.), but evidence from Indo-European languages is too meagre for comparison with the Tocharian data.

[268] The Balto-Slavic forms are masculine, but the accentuation of the Slavic noun points to an old neuter (Illič-Svityč's Law; see Derksen 2015: 148-9 and Matasović 2014: 63-3, 72).

[269] Cf. also TchB *yetwe* (pl. *yetwi*) 'ornament', which is a derivative in *-μo- of the verbal root TchB *yəta*- 'to adorn; be decorated'. This noun has been borrowed to Tocharian A as *yetwe*, but the two Tocharian languages differ again in the gender and the inflection of the respective nouns. Indeed, TchA *yetwe* is alternating, while TchB *yetwe* is masculine. Theoretically, one could think that, at the

In the following paragraph, we will verify whether inherited masculine nouns have been reanalysed as alternating.

3.8.1.2. The *āke*-type

All nouns belonging to the *āke*-type are alternating and have a plural ending in TchB *-enta*, A *-ant*. Some of them have a clear etymology.

TchB *āke*, A *āk* 'end, tip' is usually traced back to PIE *$*h_2eḱ$-os-*, with a clear cognate in Lat. *acus, aceris* 'husk, chaff' (DTB: 40). Some other nouns of this class are said to go back to PIE *s*-stems, like TchB *ṣalype*, A *ṣälyp* (but pl. *ṣälypas*) 'oil', TchB *cake* 'river', TchB *īke* 'place', TchB *yarke*, A *yärk* 'honour, veneration'.[270]

TchB *ṣalype*, A *ṣälyp* (pl. TchA *ṣälypañ*) is usually connected with Gk. ἔλπος/ ἔλφος (Hesychius [with psilosis?]).[271] However, Beekes (2010: 415f.) pointed out that if ἔλπος is from *$*sélp$-os-*, we should expect spiritus asper in Greek and no oscillation between internal -π- and -φ-.[272] Skt. *sarpíṣ-* 'molten butter, lard' is a secondary formation. Germanic points to the reconstruction of a feminine *$*salbō$-* 'ointment' (cf. Goth. *salba*, OHG *salba*) and a neuter *$*salba$-* (cf. OHG *salb*). If TchB *ṣalype* is not the exact cognate of Gk. ἔλπος/ ἔλφος, one could say that the Tocharian word was in origin an adjectival derivative of PIE *$*selp$-* 'fat', subsequently substantivised as a neuter (cf. the type of Lat. *serum* 'whey' from *$*ser-ó$-* 'flowing', Skt. *punaḥ-sará-* 'running back', beside *$*sor-ó$-* > Gk. ὀρός 'whey').[273]

As far as TchB *cake* 'river' is concerned, the reconstruction of an *s*-stem from the verbal root *$*tek^w$-* 'to flow, run' is formally possible, but it is not supported by comparative evidence. In Germanic, the root has been nominalised as an *o*-stem in e.g. Got. *þius* 'servant', OE *þēow*, while in Balto-Slavic we find OCS *tokъ* 'current, course' and Lith. *tãkas* '(foot-)path' < PIE *$*tok^w-o$-* (Derksen 2015: 457). Both Germanic and Balto-Slavic seem to

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moment of the borrowing, Pre-TchB *$*yetwe$* was alternating (< neuter) and that TchA maintained the gender of the borrowed word, while Tocharian B reinterpreted the noun as a masculine. However, since loanwords are typically inserted into Class III (alternating), it is more probable that the gender of TchA *yetwe* is an innovation.

[270] Another neuter *s*-stem continued in Tocharian is TchB °*kälywe* /kǝĺwe/, A °*klyu* 'fame', attested only in the dvandva-compound TchB *ñem-kälywe*, A *ñom-klyu* 'renown' (← 'name' + 'glory'). It is from *$*ḱleu̯$-os-* (cf. Ved. *śrávas-*, Gk. κλέος, OIr. *clú*, etc.). See Höfler (2012: 132f.).

[271] The shape of the Tocharian word is peculiar, because of the palatalised *-ly-* /ĺ/. Mechanically, TchB *ṣalyp-* /ṣǝĺp/, A *ṣälyp* points to the reconstruction of *$*selep$-* or perhaps *$*selpi$-*, which are not found elsewhere in the Indo-European domain. However, on the basis of TchB *kǝĺp-* 'to steal' < *$*ḱĺǝp$- < PIE *$*klep$-*, one can traced TchB /ṣǝĺp-/, A *ṣälyp* back to PTch *$*ṣǝĺp$- < * $ṣĺǝp$- < *$*sleb$-* (cf. Goth. *slepan* 'to sleep', LIV²: 565).

[272] Rieken (1999: 180) equates Gk. ὄλπη 'oil flask' with Skt. *sarpíṣ-*. The former would be the outcome of *$*solpeh_2$-*, and the latter would mirror a secondary *s*-derivative *$*sélp-h_2-s$-*. She further thinks that Gk. ἔλφος is from *$*sélph_2-e/o-s$-*, with -φ- from *$*-pH$-*.

[273] One may even wonder whether PGerm. *$*salbō$ < *$*selpeh_2$* is to be ultimately interpreted as the neuter plural of *$*salba$ < *$*selpom$*.

match YAv. *taka-* 'flowing, course' (m.) morphologically. For Tocharian, I see two options: TchB *cake* is either the outcome of a thematic derivative *tek^w-ó-* 'flowing', substantivised as 'river' (cf. Lat. *serum*), or an original *nt*-participle from the same root, i.e. *tek^w-ont-* 'that which flows (nt.)' → 'river' (DTB: 267).

On the other hand, TchB *īke* 'place' (pl. *ikenta ~ ykenta*)[274] can unambiguously be compared with Lat. *vīcus* 'village', PGerm. *$*wīha-$* < *$*u̯ei̯ḱ-o-$* (masculine *o*-stem, cf. also Gk. (ϝ)οἶκος 'house, household', Skt. *véśa-* 'house, brothel', de Vaan 2008: 675; see Kroonen 2013: 585 on the Germanic evidence).

Lastly, TchB *yarke*, A *yärk* 'honour, veneration' has been related to Skt. *arká-* 'ray, light, shine; song', and Arm. *erg* 'song, poem, playing' as reflecting PIE *$*h_2erḱ-o-$* (m.). Schindler (1980: 84) questioned this derivation, claiming that, if from a masculine *$*o$*-stem, this noun was not expected to be alternating in Tocharian. He therefore argued that the Tocharian noun points to an *$*s$*-stem *$*h_2erḱ-os-$* (cf. also Hilmarsson 1986d; Ringe 1987: 102; Pinault 2008: 497), but this reconstruction cannot be substantiated from a comparative perspective. I would rather claim that the merger of the masculine with the neuter in the thematic inflection has produced the reanalysis of old masculine nouns as alternating, since they both ended in PTch *$*-æ$* in the singular. As a consequence, TchB *yarke*, A *yärk* 'honour, veneration' can be traced back to a masculine thematic type, which was transferred to the alternating class at a later stage (cf. below §3.8.1.3).[275]

A similar case is TchB *erepate* (pl. *-enta*), A *araṃpāt* 'shape (= Lat. *forma*)', a compound of TchB *ere*, A *araṃ* 'appearance' (see §3.6.1.1) and PTch *$*patæ$* (pl. *$*patænta$*). Since Pisani (1942-1943: 28), PTch *$*pate$* has been compared with Skt. *bhā́ti-* 'splendor' as derived from PIE *$*b^heh_2-$* 'to shine'. Following Van Windekens (1976: 149), we may reconstruct a substantivised participle *$*b^hh_2-to-$* > *$*bǎto-$* 'splendid, appeared'.

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[274] It seems that the distribution between the variants *ike*[(o)] and *yke*[(o)] is partially conditioned by the position of the stress, since the latter variant is only found in inflected or derived forms with more than two syllables, like in secondary case forms (e.g. *ykene* 90K-58F-01 a11, AS13C a2, AS17H b5, AS17I b2, NS36 and 20 b5, NS80.3 b3, B3 a6, B32 b6, B88 b2, B92 b3, B278 b1; *ykemeṃ* IT127 b1, B108 b2, B143 b2), in derived adjectives (*ykeṣṣa* B41 a3), in the plural (e.g. *ykenta* AS19.22 b5, SI B 121(2) b3, SI P 2 a3, B45 b3, B241 b4, THT3153 b2; *ykenta* /// B614 a1; *ykentane* 90K-58F-01 a2; DA M 507.37 and .36 a54, B88 b2, B302 b3, B427 b5, B506 b3; *ykentäne* B545 b3; *ykentameṃ* IT127 b1; *ykentaṣṣeṃ* B213 a1), and in the compound *yke-postäṃ* 'bit by bit' (e.g. G-Qm 1 a2, IT55 b7, IT188 b3, IT271 b4, IT723 a2, AS6C a1, AS7M b2, AS15A b4, AS17A a2, SI P 2 b6, B10 b7, B45 b4, B46 b3, B99 b2, B107 b9, B205 b2, B270 b1, B271 a2, etc.). Somewhat similarly we have TchB *ore* 'dust' vs. pl. *wrenta*.

[275] Pinault (2008: 30) reconstructs PIE *$*b^hag-os-$* (nt.) as the ancestor of TchB *pāke*, A *pāk* 'part, portion'. However, all other Indo-European languages point unambiguously to a thematic *$*o$*-stem (cf. Ved. *bhága-* 'prosperity', YAv. *baγa-* 'lord, god; prosperity', OP *baga-* 'god'; Ved. *bhāgá-* 'share, portion', OAv. *bāga-* 'id', see Lubotsky 1981). The Slavic noun *$*bogъ$* 'god' (cf. OCS *bogъ* 'id.', Russ. *bog* 'id.', etc.) is generally considered to be a loanword from Iranian (Derksen 2008: 50). In view of the semantic and formal similarities of TchB *pāke*, A *pāk* with IIr. *$*bhāga-$* and the absence of strong comparative evidence outside Indo-Iranian, borrowing of the Tocharian word from Iranian is most likely (cf. further Khot. *bāga-* 'part, portion'; see Van Windekens 1976: 636 and Tremblay 2005: 424).

A more complex case is TchB *śātre* 'grain'[276], which is usually taken as the outcome of an instrumental noun *$g^w i(e)h_3 u$-o-trom* '± Lebensmittel' (DTB: 682). Pinault (2008: 368-9) doubts this reconstruction, since the instrumental suffix *-tro-* is usually not continued in Tocharian. He therefore reconstructs *$g^w ioh_3$-tu-* (cf. OAv. *jiiātu-* 'life'), which, however, would require a heavy remodelling of the expected outcome (see Peyrot 2018: 257). For this reason, I still think that the classical etymology is to be preferred, despite the isolation of the suffix *-tro-* in Tocharian.[277]

Another noun that can be reconstructed as neuter is TchB *wase*, A *wäs* 'poison'. Adams (DTB: 634) gives no plural forms, but Thomas (1964: 239) suggested *wsenta* as the plural of TchB *wase* (cf. also Van Windekens 1976: 563). In fact, this *wsenta* may be restored in B355 a5 /// *tarya wse(n)ta taśimme* "… may I touch three poisons for us", which also allows us to reconstruct TchB *wase* as an alternating noun. As far as the etymology of the noun is concerned, TchB *wase*, A *wäs* can be compared to Skt. *viṣá-*, Av. *viša-* 'venom, poison' (nt.) < PIE *$u$isom*, and, more distantly, to Lat. *virus*, Gk. ἰός.

There are some other words that may point to old thematic neuters, but their etymology is either too uncertain or comparative evidence is weak[278] (e.g. TchB *lakle* 'suffering, sorrow' < PIE *luglo-* [m. or nt. ?], cf. Gk. λευγαλέος 'unhappy', λυγρός 'id.'; Lat. *lugēre* 'be sad').[279]

3.8.1.3. The mainstream development of the thematic neuters

In the previous paragraphs, we have seen that Tocharian inherited a few thematic nouns which comparative evidence allows to reconstruct as neuter. For the most part, they have been continued as alternating, and thus have converged in the *āke*-type. However, some

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[276] For the meaning of the word, see Ching (2012: 308-9) and Peyrot (2018).

[277] Other hypothetical continuants of the PIE suffix *-tro-* are TchB *enmetre* 'bark' and TchB *tsarātre* 'extract' (DTB: s.v.).

[278] According to Hilmarsson (1986b), TchA *klop* (pl. -ant ~ -āntu) 'misfortune' (= Skt. *duḥkha*) can be derived from *$g^h lobom$* with cognate in OIcel. *glap* 'mistake, misfortune'. On the other hand, van Beek (2013: 319) hesitantly tries to link TchB *yenme* 'gate, entry, portal' with Gk. εὐνή 'lair, bed' (cf. also Hilmarsson 1986: 52f.). He reconstructs PIE *$h_3 ieb^h$-mn-o-* denoting 'that into which one penetrates' as the ancestor of the Tocharian word and PIE *$h_3 ieumneh_2$-* 'cave lair' as underlying Gk. εὐνή, with a special phonetic development of *$h_3 ieb^h$-mn-* 'to enter' > *Hieu-mn-*. But all these explanations are difficult. On the paradigm of TchB *ore* '?', quoted by Krause & Thomas (TEB §167), see Winter (2003). Adams (DTB: 103-4) gives TchB *ewenta* as the plural of TchB *ewe ~ iwe* 'inner skin, leather', but I was not able to find this plural form. I wonder whether this alleged *ewenta* is actually a misreading for the adverb *eweta* 'in conflict (with)'.

[279] One could also be tempted to see in some adverbs ending in TchB *-e* the crystallisation of neuter forms. For instance, TchB *ñatke* 'urgently, quickly' (linked to *nətka-* 'to push away') can be interpreted as an original *R(e)-(o)-derivative, which is reconstructed by Malzahn (2012: 169) as *ñatke* 'pushing, holding off' (cf. the derived adjective *eñaktetse*, on which see Ogihara 2009: 396-8 and Malzahn l.c.). Cf. also TchB *lauke* 'far' from *louḱó-* 'free, light space' (Lith. *laũkas*, Skt. *loká-*). In a similar way, TchB *ate* 'away' has been traced back to PIE *$h_2 et$-om* by Hilmarsson (1996: 51).

others have been reassigned to the masculine gender, as they synchronically belong to the *yakwe*-type.

The same kind of evolution can be seen in Latin, from the early stages. Some examples include (Loporcaro 2018: 19; Rovai 2012):

> Lat. *dorsus* (m.) 'back' (Pl. Mil. 297) vs. regular *dorsum*, gen.sg. *dorsi* (nt.)
> Lat. *corius* (m.) 'leather, skin' (Pl. Poen. 139) vs. regular *corium*, gen.sg. *corii* (nt.)
> Lat. *lactem* (m.) 'milk' (Petr. 7.1.1) vs. regular *lac*, gen.sg. *lactis* (nt.)
> Lat. *vinus* (m.) 'wine' (Petr. 41. 12) vs. regular *vinum*, gen.sg. *vini* (nt.)

Sporadic cases of the reverse development are equally attested. Examples are (Loporcaro 2018: 234-5):

> Lat. *catilla* (nt. pl.) 'bowls' (Petr. 50.6) vs. regular *catillus* (m.)
> Lat. *nasum* (nt.) 'nose' (Pl. Am. 444; Mil. 1265) vs. regular *nasus* (m.)
> Lat. *puteum* (nt.) 'pit, well' (Pompon. Dig. 19.1.14) vs. regular *puteus* (m.)
> Lat. *cāseum* (nt.) 'cheese' (Varro, Rust. 2.1.4.; Apul. Met. 1.5) vs. regular *cāseus* (m.)
> Lat. *pāne* (nt.) 'bread' (Pl. Cur. 367) vs. *pānis* (m.)
> Lat. *sale/ sal* 'salt' (nt.) (Varro, Gram. 64; Lucr. 4.1162; Ennius, Ann. 386, etc.) vs. *sāl, -is* (m.)

As this list shows, neuter variants of regular masculine nouns are attested from Archaic to Imperial Latin. However, real signs of the decline of the neuter begin to appear only at a later stage (with some earlier instances in Petronius; Adams 2011: 271f.). Indeed, with the gradual depletion of the neuter gender, the confusion between masculine and neuter gradually increased, and this caused a mix-up of the two inflections.

The same kind of doublets can in my opinion be reconstructed also for an unattested phase of Tocharian. That it is to say, after the morpho-phonological merger between masculine and neuter in the singular, it is reasonable to assume that some nouns started to shift inflectional class and gender. The case of Tocharian is more difficult to evaluate, because we do not have the attestation of this gender fluctuation and inflectional oscillation. Cases where original neuter nouns have been probably reassigned to the masculine gender in Tocharian are:[280]

> PIE *$d^h\mu or$-o- (nt.) > *$tw\alpha r\alpha$ (alt.) → (m.) > TchB *twere* 'door' (m.)
> PIE *$\mu \acute{e}\acute{g}^h$-no- (nt. ?) > *$\acute{w} \partial kn\alpha$ (alt.) → (m.) > TchB *yakne* 'manner' (m.), TchA *wkäṃ* (alt.)
> PIE *h_3er-os- (nt.) > *$\alpha r\alpha$ (alt.) → (m.) > TchB *ere* 'appearance' (m.)

The last example matches the Latin type *corpus, corporis* 'body' (nt. III decl.), reanalysed in Late Latin as a masculine II declension noun *corpus, corpi*. It is very probable that other cases like these still wait to be discovered in Tocharian. Perhaps, the fact that the

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[280] On TchB *ere* 'appearance', see also §3.6.1.1.

masculine and the neuter fluctuated for a while may be shown by some isolated forms. A good example is TchA *ṣpäṃ* 'sleep', which attests a plural inflection of both the *yakwe*-type (obl.pl. *ṣäpnas*, masculine) and the *āke*-type (*ṣäpnant*, alternating). However, we also have apparent cases of the reverse development, i.e. masculine nouns reassigned to the alternating gender:

PIE *$h_1erḱ$-o-* (m.) > *$yərkæ$* (m.) → (alt.) > TchB *yarke* 'honour' (alt.), A *yärk* (alt.)

PIE *tek^w-o(nt)-* (m.?) > *$cəkæ$* (m.) → (alt.) > TchB *cake* 'river' (alt.)

PIE *b^hh_2-to-* (m.) > *$patæ$* (m.) → (alt.) > TchB °*pate* (alt.), A °*pāt* (alt.)

These data are contradictory only in appearance. Indeed, they simply point to variation in the gender assignment of (Pre-)Proto-Tocharian, showing that the system was flexible for a period of time before it was standardised and became more fixed. This development was caused by the formal merger of the masculine and the neuter in the thematic inflection of the singular. Another piece of evidence that may support a relation between the diachronic evolution of the gender systems of (Pre-Proto-)Tocharian and Latin is that some old neuters are inserted into new inflectional types, whose plural morpheme is the outcome of a reanalysis of the final part of the stem as part of the ending. The Tocharian classes with pl. *-wa* < *-u-a*, *-na* < *-n-a*, *-nma* < *-mn-a*, and *-nta* < *-nt-a* strongly resemble the Late Latin inflectional class with plural *-ora*. In central and southern Italian dialects and in Romanian, a second neuter plural form *-ora* > OIt. *-ora*, Rom. *-uri* has emerged. The source of this ending is to be sought in the morphological reanalysis of plurals of the type *corpus* : *corpora* 'body(s)', *tempus* : *tempora* 'time(s)', etc. This class became quite productive in the history of Old Italian, since it acquired some new members, like OIt. *cambio* 'exchange' : *cambiora* from *cambiare* 'to change', OIt. *campo* 'field' : *campora* from Lat. *campus, -ī* m. 'id.', OIt. *fuoco* 'fire' : *fuocora* from Lat. *focus, -ī* 'fireplace; heart', OIt. *prato* 'meadow' : *pratora* from Lat. *prātum, -ī* 'id.' , OIt. *orto* 'vegetable garden' : *ortora* from Lat. *hortus, -ī* 'garden' (Loporcaro, Faraoni & Gardani 2013; Ciancaglini & Keidan 2018: 50-1). Cf. also the productive neuter plural marker *-er* in German (old *s*-stems), as compared to the much rarer Dutch plurals in *-eren* (of the type *been* 'bone', pl. *beenderen*, *blad* 'leave', pl. *bladeren*). The same happened in Tocharian, where the plural forms ending in *-C-a* have been reanalysed as *-Ca* and then these new plural markers (particularly TchB *-nta*, A *-nt*, and TchB *-nma*) have been generalised to other formations that are etymologically unrelated to these endings.

To sum up, the development described above was caused by the morpho-phonological mergers between the three inherited genders. This produced fluctuation in the gender assignment. In the noun inflection, the outcome of this development caused the shift of the lexical gender of some nouns. The origin of this evolution is clear, but how exactly the gender reassignment has worked is not easily detectable from the data.

So far, we have focused on the development of the thematic neuter singular, investigating details of its formal and functional merger with the thematic masculine. In the following section, I will analyse the evolution of the neuter plural and its merger with the feminine. If I am correct, evidence of this merger may be found in the so-called *oko*-type, where old thematic plural forms may have been reanalysed as singular due to the formal merger of the neuter plural with the feminine singular.

3.8.2.1. The *oko*-type

From a synchronic perspective, the nouns belonging to the so-called *oko*-type constitute a coherent class. They are typically alternating and have no formal differentiation between nominative and oblique in the inflection of both the singular and the plural: nom.obl.sg. -*o* and nom.obl.pl. -*onta*. Since this is the only Tocharian B inflectional class with obl.sg. -*o* (with the exception of the unproductive and semantically marked *śana*-type), it follows that if a noun has an obl.sg. -*o* (or derived forms regularly based on the oblique stem) and does not refer to a female entity, it can be included into this class of alternating nouns.

From a diachronic perspective, they are problematic. As pointed out by Adams (2015: 179), in origin it is a heterogeneous group, which, for the most part, is represented by verbal nouns (both abstract nouns and *nomina actionis*). Synchronically, the nouns of the *oko*-type can be divided into two groups: (1) nouns that have cognate verbs; (2) nouns without any cognate verb attested. In the following, I will deal with these two groups separately.

Nouns with cognate verbs

The mechanism thanks to which the noun is derived from the verb is not always the same. Indeed, the root vowel of the noun does not often match the root vowel of the verb synchronically (Ringe 1987; Adams 2015: 179f.). See the following list (Tocharian A loanwords from Tocharian B are given in square brackets):

Table III.24. Nouns of the *oko*-type derived from verbs

VOWEL CORRESPONDENCE	NOUN	VERB
(1) *a :: a*	TchB *kāko* /káko/ 'invitation' TchB *krāso* /kráso/ 'vexation' TchB *plānto* /plánto/ 'joy' [TchA *plānto* 'id.']	TchB *kwa-, kaka-* 'to call, invite' TchB *krasa-* 'to vex, annoy' TchB *planta-* 'to rejoice, be glad'

		TchB *yāso* /yáso/ 'excitement'[281]	TchB *yasa-* 'be excited'
(2)	*ə :: ə*	TchB *palsko* /pə́lsko/ 'mind' TchA *pältsäk* 'id' TchB *raso* /rəso/ 'span' TchB *traṅko* /trəṅko/ 'sin'	TchB *pləska-* 'to think' TchA *pälskā-* 'id.' TchB *rəs-* 'to stretch' TchB *trənk-* 'to lament' or PTch **trənk-* 'to cling'[282]
(3)	*aw :: aw*	TchB *pauto* /páwto/ 'flattery' TchA *poto*[283] 'id.'	TchB *pawta-* 'to flatter' TchA *pawtā-* 'id.'
(4)	*ay :: ay*	TchB *laiko* /láyko/ 'lotion (?)'[284]	TchB *layka-* 'to wash'
(5)	*əy :: ə*	TchB *pilko* /pə́ylko/ 'insight' TchA *pälk* 'id.' TchB *pirko* /pə́yrko/ 'rise' TchA *opärkā* 'at sunrise'[285] TchB *misko* /mə́ysko/ 'trading'	TchB *pəlka-* 'to see, look' TchA *pälkā-* 'id.' TchB *pərka-* 'to rise, come up' TchA *pärkā-* 'id.' TchB *məsk-* 'to exchange'
(6)	*'əy :: əy*	TchB *ṣiko* /ṣə́yko/ '(foot)step' TchA *ṣik* 'id.'	TchB *səyka-* 'to take a step' TchA *säykā-* 'to be flooded'
(7)	*yə :: wə*	TchB *yarpo* /yə́rpo/ 'merit'	TchB *wərpa-* 'to enjoy'
(8)	*ay :: əy*	TchB *traiwo* /tráywo/ 'mixture'	TchB *trəywa-* 'to mix'

Let us ignore for a moment the question of the origin of the final TchB *-o* and let us focus instead on the mismatching root vowel between the noun and the verb. As can be seen, the nouns grouped in (1)-(2)-(3)-(4) merely repeat the root vowel of the underlying verbs. The relevant issue here is to understand whether the nouns are derived from the verbs or the derivation is to be interpreted the other way around. For groups (1)-(2), the first

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[281] Adams (DTB: 533) glosses the word as feminine. It is only attested in two fragments (B155 b4 and B527 a4), where there are no agreement environments that allow us to establish the gender with certainty.

[282] See Adams (DTB: 332).

[283] See Pinault (2008: 434).

[284] The meaning follows Filliozat (1948) and Broomhead (1962). Adams (DTB: 610) proposes 'bath, washing'.

[285] This noun is a hapax legomenon attested in A265 a3. The meaning follows Krause & Thomas' "zur Morgenzeit" (TEB § 286). Sieg, Siegling & Schulze (SSS) translated it as "vielleicht = im Osten".

solution seems generally more plausible, but the case of TchB *krasa-* is problematic.[286] Malzahn (2010: 613) analyses it as a denominal verb from an unattested continuant of a PIE **o*-stem (but see DTB: 231 and Hilmarsson 1991: 142ff. for yet other suggestions). On the other hand, TchB *pawta-* 'to honour, flatter' is derived from an abstract formation **bʰoṷdʰo-* 'listening, attention', which is however not directly attested itself (Malzahn 2010: 730). Otherwise, one might say that TchB *paut-o* is itself directly derived from PIE **bʰoṷdʰ-* and that the verb is denominal after this attested substantive.

The nouns sorted in the other groups have different root vowels with respect to the verbs to which they are related.

Nouns in (5)-(6)-(7) are the continuants of the PIE **e*-grade, while the underlying verbal roots go back to the zero grade (Winter 1988: 777f.). Indeed, labial consonants had a palatalised counterpart in Proto-Tocharian, which mostly resulted in the corresponding non-palatalised consonant with colouring of the following PTch **ə* to TchB *i*.[287] Therefore, the vowel mismatch between nouns and verbs in groups (5)-(6) is to be interpreted as an original paradigmatic opposition between the zero grade of the verb and the **e*-grade of the derived noun, which in turn caused palatalisation of the preceding consonant. A confirmation of this analysis is offered by TchB *ṣik-* 'footstep' < **seį̯k-*, which shows palatalisation of the *s-* (cf. the underlying verb TchB *səyk-* < **sik-*). Furthermore, if TchB *yarpo* /yə́rpo/ (7) has been correctly identified as derived from *wərpa-* (Winter 1988: 777), we can account for the palatalisation of the initial **w-* by postulating an *e*-grade of the root **u̯erP-*.

The case of TchB *traiwo* 'mixture' (cf. the derived adjective *traiwoṣṣe**) and TchB *trəywa-* is difficult, because the etymology of the verb is debated. However, the type of vowel correspondence between the noun and the verb may allow us to think that the former derives from a form with **o*-vocalism in the root, while the underlying verb shows the outcome of the zero grade. If so, one may wonder whether this noun is to be interpreted as a derivative of the τομή-type (with lack of *o*-umlaut in roots with *ai-* or *au-*

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[286] TchB *kwa-*/*kaka-* 'to call' has been correctly derived from PIE **ǵʰuH-* 'to call' (cf. Skt. *hávate*, Van Windekens 1976: 192; Hackstein 1995: 24). Hilmarsson (1996: 200-1) reconstructs **ǵʰuH-kH-* yielding **kʷaka-* > PTch **kaka-*, while a non-extended root **ǵʰuH-* should have developed TchB *kwa-*. TchB *kāko* 'invitation' is historically derived from the subjunctive stem |káka-| of TchB *kwa-*. TchB *planta-*, A *plantā-* is from **sploH-nd-* (cf. Lat. *splendēo* 'to shine'). For the development PIE **-nd-* > PTch **-nt-* (instead of **-ntˢ-*), see Malzahn 2010: 742; DTB: 459. TchB *yasa-* 'to be excited' is an intransitive verb derived from TchB *yəsa-* 'to excite (sexually)' < PIE **įes-* 'to seethe' (Gk. ζέω 'to boil', Skt. *yásati* 'to froth up', etc.). As for the verbs with *ə*-grade, TchB *pləska-*, A *pläskā-* is from **bʰl̥g-sḱe/o-* (cf. Lat. *fulgō*, Melchert 1978: 104), while for TchB *rəs-*, A *räsā-* 'to stretch' no clear etymology is available.

[287] TchB *palsko*, A *pältsäk* (with *t*-epenthesis) 'thought' may have derived directly from PTch **pəlsk-* < **bʰl̥k-sḱe/o-*. Otherwise, if from an original **e*-grade, one can say that the noun was originally **pĺ̥əsko* (cf. 3sg.subj. *plāskaṃ*), which subsequently evolved into **pəlsko* > **pəlsko* with regular depalatalisation of **ĺs* > *ls* (cf. TchB *pəlka-* 'to see' vs. TchB *pləska-* 'to think' and TchB *kərsa-* 'to know' [3sg.prt. *śārsa*] vs. TchB *krəsta-* 'to cut' [3sg.prt. *karsta*]). See Kim (2007b) and Peyrot (2013: 479-80).

diphthongs, cf. Peyrot 2013: 52; Pinault 2008: 433-38). But the isolation of the stem pattern in the vowel correspondences between the noun and verb invokes caution.[288]

The vowel mismatch described so far can be historically presented in the following terms:

Table III.25. Vowel correspondence between nouns and underlying verbs

TOCHARIAN VOWEL CORRESPONDENCE	PIE GRADE
'əy :: *ə*	**e* :: **Ø*
'əy :: *əy*	**e* :: **Ø*
yə :: *wə*	**e* :: **Ø*
ai :: *əy*	**o* :: **e* or **e(h₁)* :: **Ø*

Origin of the *oko*-type

It is now time to comment on the final vowel TchB -*o* and to discuss its origin. First, we need to clarify how these nouns were inflected in Proto-Tocharian. The comparison between Tocharian A and B yields a clear picture. See the following correspondences:

TchB *palsko* 'mind, thought', pl. *pälskonta* :: TchA *pältsäk*, pl. *pälskant*
TchB *wartto* 'forest', pl. *wärttonta* :: TchA *wärt*, pl. *wärtant*
TchB *parso* 'letter', pl. *pärsonta* :: TchA *pärs*, pl. *pärsant*
TchB *pilko* 'insight, view', pl. *pilkonta* :: TchA *pälk*, pl. *pälkäntu*[289]
TchB *şiko* '(foot)step', pl. *şikonta* :: TchA *şik*, obl. pl. *şikās*

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[288] The underlying verb TchB *trəywa-* has been connected with the PIE root **terH-* 'to drill, rub' (Gk. τείρω, τρίβω, Lat. *terō* 'to rub', Lith. *tìrti* 'to investigate', etc. LIV²: 632), but the derivation and the ablaut grade from which it comes from are unclear. On the basis of the alleged participle *tattripu* in Tocharian A, Adams (DTB: 337) reconstructs PTch **trəyp-*, but Malzahn (2010: 671) claims that *p* for *w* could be secondary (likewise Peyrot 2013: 759 fn. 322). One can toy with the idea that the paradigm of the verb actually originated from the noun. Thus, TchB *traiwo* could be the outcome of either PIE **troH-i-* or **trHo-i-* (cf. ppp. Lat. *trītum* < **treh₁-i-*, de Vaan 2008: 616), enlarged with the resultative adjectival suffix -*u̯o-*, thus **troHi-u̯o-* or **trHoi-u̯o-* (cf. TchB *traiwe* 'mixture (?)', Malzahn 2012: 168). Our TchB *traiwo* would be the original neuter plural reanalysed as a (collective) singular. Otherwise, TchB *tri-w-* is from an athematic present PIE **trH-ei̯-* (de Vaan 2008: 616) followed by -*w-*. If so, a derived noun based on the *o*-vocalism of the stem was built in Pre-Proto-Tocharian. But this is of course very speculative. The adjective *triwaitstse**, based on a noun *triwo**, obl. sg. *triwai** is secondary and based directly on the verb. Compare also TchB *şərt-*, A *şärttw-* 'to incite, instigate' and the nouns TchB *şärtto** 'encouragement (?)' (obl. sg. *şärttai*), B *şertwe* 'instigation' (τόμος-type) and TchB *spartta-*, A *spartwā-* 'to turn' and the nouns TchB *spārtto* 'discipline (?)', TchB *spertte* 'behavior', A *spartu*, on which see Pinault (2008: 448) and Malzahn (2012: 169).

[289] Cf. TchA *pälkäntwäş* in A227-228 b7 and TchA *pälkäntwā-şi* in A222 a1.

Only five nouns attest a plural paradigm in Tocharian A. Three of them match the inflection of Tocharian B. On the basis of this correspondence, it is safe to reconstruct a Proto-Tocharian inflectional class with nom. obl. sg. *-å > TchB -o, A -Ø, and nom. obl. pl. *-ånta > TchB -onta, A -ant. The only two nouns that may invalidate this reconstruction are TchA pälk and TchA ṣik. As for the first noun, the plural -äntu is very productive in Tocharian A, so it can be interpreted as secondary (cf. also the alternation in the Tocharian B plurals pärsonta ~ pärsanta and träṅkonta ~ träṅkanta). The plural TchA ṣikāñ |-ās is more problematic. I will come back to this form later.

As pointed out by Hilmarsson (1986:19) and Adams (2015:179), the nucleus of this class is to be sought in deverbal nouns derived with the PIE abstract suffix *-eh$_2$. By assuming that the plural -nta is late, this reconstruction works phonologically fine, since an original paradigm nom.sg. *-eh$_2$, acc.sg. *-eh$_2$-m would have yielded nom.obl.sg. PTch *-å.

But there are two additional problems to be solved: (1) why do these nouns not inflect as members of either the kantwo-type or the okso-type? (2) Why are these nouns alternating and not feminine? I think that these two questions are linked, and a common answer can be offered.

In my view, some of the nouns of the oko-type can be historically analysed as neuter plural forms ending in *-eh$_2$ of corresponding thematic neuter formations in *-om of the following types: (1) PIE *i̯ugóm 'yoke', pl. *i̯ugéh$_2$; (2) PIE *h$_2$érh$_3$-trom 'plow', pl. *h$_2$érh$_3$-treh$_2$; (3) and perhaps *dʰeusóm, pl. *dʰeu̯séh$_2$, if this latter type is to be reconstructed for the proto-language (Goth. dius 'wild animal', ON dýr, OE dēor < *dʰeu̯sóm, but cf. also OCS duxъ 'breath, spirit' < *dʰou̯sóm, Nussbaum 2017: 244ff.; cf. also PIE *u̯erdʰom 'word', *u̯egʰi̯om 'vehicle').[290] Furthermore, they can also be the outcome of neuter nouns of the R(ó)-o-type. We have seen that these derivatives are typically masculine. However, neuter forms can be occasionally found in some Indo-European languages. An example is Hitt. u̯arpa- (nt.) 'enclosure', mostly used in the plural u̯a-ar-pa (Melchert 2014; Nussbaum 2017: 234). This noun can be compared in both the meaning and the formation with PTch *u̯ærpæ (cf. A72 b2 loc.sg. tālont warpaṃ "in a miserable enclosure"), which was the base of TchB werwiye 'garden' (colloquial spelling for werpiye, cf. the derived adjective werpyeṣṣe*), TchB werpiśke* 'garden', A warpi 'garden'. This reconstructed noun seems to be also the source of the verb TchB warpa-, A wārpā- 'to surround' (DTB: 637; Malzahn 2012: 167).

It follows that the oko-type can be traced back to either *eh$_2$-formations or old neuter plural forms reinterpreted as singular.[291]

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[290] Cf. also Hilmarsson (1986b: 115): "Perhaps in this case the -o : -onta flexion is based on an old neuter collective plural in *-ā?". For a theoretical framework of this merger based on Latin data, see Rovai (2012).

[291] If so, TchB krasa- 'to torment' may be a denominal verb from *gʰros-om, pl. *gʰros-eh$_2$ with the a-vocalism due to a-umlaut which in turn has been transferred to the noun TchB krāso. Also, TchB traiwo 'mixture' seems to be linked with traiwe* 'id.' (hapax legomenon in IT3051 b3). Synchronically, they are two different nouns, but one could also toy with the idea that they originally

This development has been caused by the morpho-phonological merger between the singular inflection of the feminine in *-*eh₂* and the plural inflection of the neuter thematic stem, both ending in *-*ǻ* in Proto-Tocharian. This merger would have favoured the reanalysis of old neuter plural forms as singular. If this is indeed the case, we have to assume that words with *-*ǻ*-inflection (from both the feminine *-*eh₂* and the old neuter plural) had some variants forms in the ancestors of the classes with pl. ending TchB *-añ/-aiñ*, A *-āñ* and the *oko*-type for a while, with the subsequent victory of one of the paradigms at the end. Indirect evidence for such a reconstruction comes from other nouns with a formation parallel to the one of the *oko*-type but with different inflection, gender, and root grade. Some examples include (Adams 2017: 1374): TchB *prosko* f. 'fear' (obl. sg. *-ai*) : TchB *prəska-*, A *präskā-* 'to be afraid'; TchB *yoko* f. 'thirst, desire' (obl. sg. *-ai*) : TchB *yok-* 'to drink'; TchB *ṣārtto* (obl. sg. *-ai*) 'encouragement (?)' : TchB *ṣərtt-* 'to incite'; *tsāro* (obl. sg. *-a*) 'monastery' : TchB *tsər-* 'to separate'. The deviant plural TchA *ṣikāñ| -ās* '(foot)steps' for the expected **ṣikant* may be now interpreted in the same light.

Nouns without cognate verbs

According to Adams (DTB: s.v.) the few nouns of the *oko*-type for which no cognate verbs attested are: (1) TchB *wartto*, A *wärt* 'forest'; (2) TchB *miśo* 'urine'; (3) TchB *oko*, A *oko* 'fruit'; (4) TchB *parso*, A *pärs* 'letter'; (5) and perhaps TchB *to* 'hair (?)'.

Under this short list, another noun needs to be ranged. It is TchB *pīto* 'price, cost', a loanword from the pre-form of Khot. *pīha-* 'price' < *pīϑa-* (Bailey 1967: 196-7, 1978: 242; Tremblay 2005: 428). Adams (DTB: 412) analyses the noun as masculine and gives the following paradigm: nom.sg. *pīto*, obl.sg. *pīto*, gen.sg. *pītantse*, obl.pl. *pitaiṃ*, with a derived adjective *pitaitstse* '±having a price'. This paradigm is truly bizarre, since it makes TchB *pīto* a concurrent member of the *oko*-type (cf. nom.obl.sg. *-o*), the *okso*-type (cf. obl.pl. *-aiṃ* and the derived adjective), and the *arṣaklo*-type (cf. the gen. sg. *-antse*). In the following, I will show that TchB *pīto* is a regular alternating noun of the *oko*-type, since all other deviant forms must be explained differently.

Let us have a closer look at the number of occurrences that each stem has. I found the following attestations:

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belonged to the same paradigm that split into doublets after the morpho-phonological merger of the neuter with both the masculine and the feminine (note that TchB *traiwe* is masculine). A similar case might be TchB *pilke* 'copper' and TchB *pilko* 'insight', both derived from the PIE root *bʰleg-* 'to burn, shine' (see also Malzahn 2012: 170).

Table III.26. Occurrences of the inflected forms of TchB *pīto* 'price'

STEM	OCCURRENCES
pito-/pīto-	nom.obl.sg. *pito* (IT574 b3; Ot 12 a14; AS7A a1; AS18A a4, a5, b5; DA M 507.5 b2; DA M 507.23 a10; DA M 507.37-.36 a76; DA M 507.38 a54; DA M 507.42-.40 a4; LC 39 a2; B99 b3; B100 a1; B315 b3; B337 a2, b3; THT1107 a5; THT1548.a a3, a5); nom.obl.sg. *pīto* (IT105 b2; IT134 a1; IT222 b2; AS18A a5; NS95 b2; B516 a2); nom.obl.sg. *p(i)t(o)* (DA M 507.38 a52); all.sg. *pitoś* (DA M 507.34 a26; DA M 507.38 a69); perl.sg. *pitosa* (B203 b4; B204 a3; B1460.a a2); perl.sg. *pītosa* (IT159 b5; THT 1548.b b3).
pīta-	gen.sg. *pīta(ntse)* (B94 b2).
pitai-	acc.pl. *pitaiṃ* (IT255 a2; B211 b2); der.adj. *pitaitse* (THT1663 b1).

As one can see, in all the non-plural forms this noun is consistently spelled *pito*(-)/*pīto*(-) (cf. also the perl.sg. *pitosa* in e.g. B204 a3 *śaulanmaṣṣe pitosa ce pernerñe kraupatai* "at the price of life you have collected this gloriousness").

The oblique plural *pitaiṃ* 'prices' occurs only twice: (1) IT253 a2 ///*śtwāra kälymiṃtsa yäkweceṃ pitaiṃ*/// "In the four quarters (of the heavens) the purchase prices in horses [are]…" (transl. by Broomhead 1962: I, 262); (2) B211 b2 *abhiṣekṣeṃ pitaiṃ*/// "prices of the ritual bathing…" (?).

On the other hand, the derived adjective *pitaitse* 'having price' is only attested in B316 a1 *snai preke pitaitse* "without time having a purchase price" (literal translation; cf. Broomhead's *pitaitse* 'having a purchase price', 1962: II, 179). Recently, however, Ogihara (2009; 2013a) discovered the new word TchB *ṣito* 'messenger' in the Berlin fragment B333.[292] This noun is a member of the *okso*-type and thus has all the non-nominative forms regularly based on the stem *ṣitai-*. Given that the akṣaras ‹pi› and ‹ṣi› are very similar in the Tocharian Brāhmī, one may wonder whether all the *pitai*-forms actually belonged to the paradigm of *ṣito* 'messenger' (Ogihara 2013a: 207-8; Peyrot 2007: n° 253): IT253 a2 ///*śtwāra kälymiṃtsa yäkweceṃ ṣitaiṃ*/// "In the four directions, horsed messengers (obl.)…"; B211 b2 *abhiṣekṣeṃ ṣitaiṃ* /// "consecrated messengers" (read so but emended to *pitaiṃ* by Sieg & Siegling 1953: 126); B316 a1 *snai preke ṣitaitse* /// "seasonably by the messenger" (= Skt. *akāla dūtasya*, cf. Ogihara 2009: 208-9).[293] It follows that all the *okso*-like forms of TchB *pīto* 'price, cost' are ghosts.

As far as the *a*-stem is concerned, it would be attested once in B93 b2 ///*śpālmeṃ tsaiñ(enta)sa pīta(ntse)*/// "…with excellent ornaments of the price of…". As one can see,

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[292] See Pinault (2017b: 138f.) for the etymology and the attested forms of TchB *ṣito*.

[293] Since the spelling gen. sg. *-tse* for *-ntse* is usually confined to late and colloquial texts (Peyrot 2008: 69), while B316 is an archaic-classical fragment, TchB *ṣitaitse* can also be interpreted as a derived *tstse*-adjective.

the gen.sg. *pītantse* is the outcome of a restoration by Schmidt (2001: 326) for the attested *pīta///*. This restoration has been recently accepted by Tamai (2018: 389), but it is untenable, because TchB *-antse* is the genitive singular of the *arṣāklo*-type, where only nouns with more than two syllables are included. One would rather expect *pitontse** (or at least **pitaintse*) as the gen.sg. of *pīto.* Furthermore, in similar context, we usually find the perl.sg. *pitosa* 'with the cost of, at the price of'. These problems have been solved by Hilmarsson (1991c: 76), who analysed TchB *pīta < *pə-yəta* as the imperative of TchB *yəta-* 'to adorn' (cf. Malzahn 2010: 792). The line should therefore be translated as follows: "...adorn with excellent ornaments...".[294] All things considered, we can conclude that TchB *pīto* 'price, cost' is a regular alternating member of the *oko*-type.

Back to the other five nouns, the fact that, synchronically, no cognate verbs are attested does not imply that they never existed historically.

In this respect, a clear case is TchB *wartto*, A *wärt* 'forest'. Adams (DTB: 630) assumes an etymological connection with Skt. *vr̥ti-* 'surrounding, covering' (< PIE *u̯r̥ti-*) and OE *worþ* 'enclosed place' (< *u̯orto-*), but it is difficult from both the phonological and the semantic point of view. On the semantic side, the development 'enclosure' → 'sacred enclosure' → 'sacred grove' → 'forest' is not convincing; on the phonological side, from PIE *u̯r̥ti-* I would expect palatalisation or assibilation of PIE *-t-*.

A more elegant solution has been proposed by Hackstein in a communication delivered to the Thirty-Seventh East Coast Indo-European Conference (University of Michigan, June 14-17, 2018). He argues that TchB *wartto*, A *wärt* is to be derived from the verbal root *$u̯re(H)d^h$*- 'to grow, be high', through the resultative verbal adjective *-u̯o-*, thus *$u̯r̥(H)d^h$-u̯o-* 'grown, upright/high'.[295] This form would have been subsequently enlarged with the collective suffix *-eh₂*. The only problem with this etymology is that we should expect TchA *wärtu** instead of the attested TchA *wärt* as the outcome of the final Proto-Tocharian sequence *-wV.* I see two possible solutions to this problem. The first implies the reconstruction of the non-complex suffix *-eh₂*, instead of *-u̯eh₂*. If so, the cluster *-tt-* in Tocharian B could be explained by recurring to a secondary gemination of *-t-* in front of *-r-*, which is irregular but common enough (see §3.7.1.2). However, Indo-European nominal derivatives of the verbal root *$u̯er(H)d^h$*- are very frequently suffixed with *-u̯o-* (e.g. *(u̯)r̥(H)d^h-u̯-o-* > Ved. *ūrdhvá-* 'upright', YAv. *ərəδβa-* 'id.'; *(u̯)orHd^h-u̯-o-* > Gk. ὀρθός 'standing', cf. the Hsch. gloss βορσόν· σταυρόν, Ἠλεῖοι, etc.; see Chantraine 1999: 818-9). The same type of suffixation is therefore expected for Tocharian too. A last possibility is to invoke some kind of contextual change, like the dissimilation of the sequence *w...w* to *w...Ø*, thus *wərtwå > *wərtå*.

Be that as it may, one could also advocate that TchB *wartto*, A *wärt* is to be historically analysed as a neuter plural, according to the following path:

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[294] This sentence appears in an exchange of words between king Candramukha and king(-gardener) Araṇemi.

[295] See Barber (2014: 32-36) for the problems related to the reconstruction of this root.

(1) Resultative verbal adjective *$u̯r̥Hd^{h}$-$u̯o$- 'grown, upright/high';

(2) Substantivised thematic noun *$u̯r̥Hd^{h}u̯o$-m (nt.) > *$wərt(w)æ$ 'tree', pl. *$u̯r̥Hd^{h}u̯e$-h_2 > *$wərt(w)å$ 'mass of trees' (see Winter 1972: 385f.; Hackstein 1995: 29 for the loss of the laryngeal);

(3) Reanalysis of PTch *$wərtå$ as a singular with subsequent specialisation of the meaning as 'mass of trees' → 'forest';

(4) PTch *$wərtå$ 'forest' > TchB *wartto* /wə́rtto/, A *wärt*.

Another noun with no attested cognate verb is TchB *miśo* 'urine'. This noun is to be linked with PIE *$h_3mei̯ǵ^{h}$- 'to urinate' (Skt. *méhati*, Av. *maēzaiti*, Lat. *meiō*, perf. *mīxī*, Gk. ὀμείχω, ON *míga*-). This is a highly productive verbal root, which generated derived nouns in several languages. It is however quite remarkable that none of them is formed through the suffix *-eh_2. We may therefore etymologically link TchB *miśo* with OLG *migge* 'Harn' < PGerm *migja*- (nt.; see Seebold 1970: 348; NIL: 384) as both reflecting a neuter thematic noun in *-$i̯o$-. If so, the reanalysis of the plural *$(h_3)miǵ^{h}$-$i̯eh_2$ > *$m̥ə́śå$ as singular would have been favoured by the collective meaning of the noun. Otherwise, following Adams (DTB: 497), the Tocharian word is derived from an *$i̯e/o$-present (cf. Lat. *meiō*).

The next noun to be discussed is TchB *oko*, A *oko* 'fruit'. The formal resemblance between Tocharian A and B strongly suggests that one language borrowed from the other. Van Windekens (1976: 332) advocates that Tocharian A is the source language, but this is improbable, since almost all the assured inner-Tocharian loanwords point to Tocharian B as the source language. For this reason, any formal link with the PIE root *$h_2eu̯g$- 'to grow' is difficult, because only in Tocharian A would *aw yield *o*. This root is continued in Tocharian as TchB *awks*-, A *oks*- 'to grow, increase (Gk. αὔξω 'to increase', Malzahn 2010: 547, cf. also Kümmel apud LIV²: 288f., who sets up a PIE root variant with final *-s-). However, a last possibility in order to connect TchB *oko* with PIE *$h_2eu̯g$- is starting with a zero grade *h_2ug-e-h_2 (neuter plural or *-eh_2-derivative), which would have yielded *$ukå$ > *$åkå$ (umlaut) > *oko* (cf. PIE *$uksōn$ > *$ukså$ > *okso*) quite regularly. Otherwise, Winter (2011: 229-30) suggests an etymological connection with OCS *agoda* 'fruit', Russ. *jágoda* 'berry', Lith. *úoga* 'id.' and Goth. *akran* 'fruit' (cf. also DTB: 115).

The origin of TchB *parso*, A *pärs* 'letter' is debated. Van Windekens (1976: 365-6) derives TchB *parso*, A *pärs* from TchB *pərsa*-, A *präsā*- 'to sprinkle', but this is semantically difficult. Tremblay (2005: 428) suggests a loanword from "Primitive Khotanese" *parsa*-, which is said to be the ancestor of Khot. *pa'sa*- 'messenger, emissary (?)'. Bailey (1979: 224) claimed that this word comes from PIE *pel-$(ḱ)$- '± to turn, wind', but his reconstruction is doubtful because continuants of this verbal root are not attested in other Iranian languages and the Iranian origin of Arm. *parsem* 'to throw (in a sling)' is unproved and semantically difficult (Hübschmann 1897: 514). Furthermore, LKhot. *pa'sa*- is sporadically attested and only in late texts, where, moreover, a meaning 'messenger' does not always fit the context. Furthermore, there is no proof that in LKhot. *pa'sa*- the so-called subscript hook stands for OKhot. -r-. Therefore, I think that an etymological link between TchB *parso*, A *pärs* 'letter' and an alleged OKhot. *parsa*- is better to be abandoned. On the other

hand, one may wonder whether this word is part of the inherited lexicon. If so, it could be derived from the possible outcome of the PIE root *$b^her s$- 'hurry, haste', cf. Hitt. *parš*- 'to flee, escape', Lat. *festīno* 'to hurry', W *brys* 'haste, speed, hurry' (Schrijver 1990; Kloekhorst 2008: 640-1; de Vaan 2008: 216; Matasović 2009: 29).

The last noun to be discussed is very difficult to identify and to interpret historically. It is TchB *to*, whose meaning has been established as 'human body hair, pubic hair' by Adams (1987 and DTB: 327). This noun seems to be attested only once in the following documents:

AS8A b6

ārtärne	*päknāträ*	*klaiṃ*	*ekalmī*	*yāmtsi*
Ārdrā:LOC.SG	intend:3SG.SBJ	woman:OBL.SG	subjected to	do:INF
naine	*ysissi*	*yoñyeṣṣe*	*to*	*pwarne*
?	touch sexually:INF	?	?	fire:LOC.SG
hom	*yamaṣäle*	*sā*	*ekalmī*	*mäsketrä*
oblation:NOM.SG	do:GER.N.SG	this:NOM.SG.F	subjected to	be:3SG.PRS.ACT

Filliozat (1948: 65) and Adams (DTB: 237) give a second attestation in W2 a6, where they read the plural form *tonta*: //*weñ erkasenta lāni yamaṣṣälona kete*[296] *ratre krāke tonta alā*/// "*erkasenta* and *lāni* are to be made; to whomever the red dirt and the *tonta...* (?)" (cf. Adams DTB: 237). The document W2 is damaged and very fainted, and the line a6 is particularly hard to read. What is pretty sure, however, is that †*tonta* seems not to be attested at all, because the line quite certainly reads *totka*, as Broomhead (1962: I, 4) already pointed out. The second part of line a6 should therefore be read as follows: *yamaṣṣälona · kete ratre krāke tokta alā(ṣṣäṃ)* "... are to be made; to whom a few red dirt (i.e. the menstrual blood (?)) is ailing ..." (?).

It follows that evidence for a noun TchB *to* comes exclusively from the fragment AS8A, which is also difficult to interpret and translate. It is a Sanskrit-Tocharian bilingual, but the Tocharian part is not a translation of the Sanskrit one; it is instead a detailed commentary on the practical aspects of a magical procedure named *brahmadaṇḍa* (Filliozat 1948: 95-7). As a consequence, the Sanskrit passage does not help to understand the content of the Tocharian section, which explains how this spell should be cast by enumerating for each lunar mansion all ingredients and oblations that one has to burn, in order to obtain the control over someone. In the passage cited above, a woman is to be subjected to someone and a *to* must be placed into fire to achieve this goal. On top of that, there are two other terms that are difficult to interpret. The first one is *taine*/*naine*. Filliozat (1948: 89-91) reads *taine* and interprets it as a locative plural of the demonstrative pronoun TchB *se* 'this' (p. 143). Adams (1986: 339-40) initially included this form into the paradigm of *to*, but then changed his mind, analysing TchB *taine* as a pronominal dual (DTB: 327). On the contrary, both Schmidt (1997: 256) and Pinault & Malzahn (apud CETOM: s. PK AS 8A) read *naine*, but their interpretations are different: on the one hand, Schmidt

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[296] Filliozat (1948: 65) reads *kene*, but Broomhead's *kete* (1962: I, 4) is to be preferred.

connects this word with TchA *neyaṃ* and thus translates '(female) bottom', but there is no evidence in support of this meaning (cf. Tamai 2014: 392 who translates *neyaṃ* with 'on the mat (?)'); on the other hand, Pinault & Malzahn etymologically link TchB *nai** with Chinese *năi* 奶 'women's breast, nipple, milk' (see Pulleyblank 1991: 221 for the Middle Chinese reconstruction), which would fit well into the context (see also Kim 2018: 52 and 62 fn. 161).[297]

The second problematic word in the same passage is *yoñyeṣṣe*. Morphologically, it is clearly a derived *ṣṣe*-adjective, but the base *yoñye°* is not clear (cf. also the loc. sg. (?) *yoñyene* in AS8B a4). Adams analyses it as a new word with the meaning of 'pubis'. This would be etymologically connected with Skt. *yoni-* 'womb, vulva'. On the other hand, Sieg (1955: 78-80) interprets *yoñy{e}ṣṣe* as a mistake for TchB *yoñyaiṣṣe* 'pertaining to the path, domain'. However, with the current knowledge of Tocharian, this *yoñyeṣṣe* can be now interpreted as a late form of the regular *yoñyaiṣṣe*, without recurring to any emendation (cf. Peyrot 2008: 59). Adams (1986: 240) objects that both AS8A and AS8B do not show confusion between *-ai-* and *-e-*, but this is not true since another clear example that can be adduced is TchB *ce* for *cai* 'these' in AS8A b7. As a matter of fact, this text is not carefully written, since many misspellings, omissions of akṣaras, and colloquial forms can be found. From a formal point of view, a form *yoñyeṣṣe* is therefore totally justified. However, it could leave some problems with regard to the meaning. Indeed, if derived from TchB *yoñiya* 'way, path, domain', a meaning 'pertaining to the way, domain' does not fit, apparently, the context of the passage.

We can now turn back to TchB *to*. As for its etymology and meaning, Adams (1986 and DTB: 327) is the only one to discuss this noun from a historical perspective. He links TchB *to* with ON *dúnn* (m.) 'down, feathery stuff' (Danish *dun* 'id.') and further claims that PGerm. **dūna* is a thematisation of the weak grade from an original paradigm **dʰouHon-*, **dʰuHn-* < PIE **dʰeuH-* 'to move back and forth, shake'. On the other hand, Tocharian would reflect a form **dʰouHōn* (a collective?), with the following phonological and semantic development: **dʰouHōn* 'fluff' > **tæwå* 'down' > **tåwå* (umlaut) > *to* 'body-hair' (contraction?). I find this etymology quite difficult to accept. First, there is no straightforward evidence that allows us to reconstruct an *n*-stem for both Tocharian and Germanic (cf. Kroonen 2013: 109, who reconstructs PIE **dʰuh₂-no-* for Germanic). Second, this derivative cannot be found in other Indo-European languages and it is completely isolated in Germanic. Third, I cannot understand how a meaning 'body-hair' or 'pubic hair' could fit the context of the aforementioned fragment. As a consequence, I believe that another etymology for TchB *to* is needed.

As we have already seen, all the other members of the *oko*-type are derivatives of a Proto-Indo-European or a Proto-Tocharian verbal root. We have also seen that where not attested, it can at least be reconstructed on a comparative level. Keeping in mind this derivational pattern and the contexts where TchB *to* is attested, I have tried to find another possible verbal root from which it could have come. From both the formal and the

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[297] For yet another hypothesis, see Thomas (1991: 298ff.), who interprets *naine* as an adverb.

semantic perspective, TchB *to* might be linked to the PIE root *$d^heh_i(i)$*- 'to suck, drink mother's milk' (cf. Arm. *diem* 'id.', Skt. *dháyati* 'id.', *dadhúr* 'they have sucked', Gk. θῆσθαι 'suckle' (Hom.), aor. θήσατο 'he sucked', Lat. *fēlare* 'to suckle', etc.). This root is continued in nominal derivatives in several Indo-European languages. Some examples include: Skt. *dhénā-* 'stream of milk, breast', *dháyas-* 'the sucking', *su-dhá-* 'juice, sap, nectar', Av. *daēnu-* 'female animal', Gk. θηλή 'mother's breast, nipple', θήνιον 'milk', Lat. *fēmina* 'woman, female' (← *'the nursing one'), Umbr. *feliuf* 'give milk', Lith. *dienì* 'pregnant', OCS *děva* 'girl, virgin'. If Tocharian can be inserted into this Indo-European group of nominal formations, then we can reconstruct a derivative of the type *$iugóm$-* (nt.), thus *$d^hHóm$* 'breast milk', (pl.) *d^hH-éh₂*, which evolved quite regularly in Proto-Tocharian as *tæ*, *tå* (or *d^hoHi-om/-eh₂*, with possible loss of intervocalic *-i- >* -y-; Ringe 1987: 129f.). This noun has been reinterpreted as singular for two reasons: (1) the increasing formal overlap between the feminine singular and the neuter plural favoured the reanalysis of the old neuter plural as singular; (2) the expected singular form TchB **te* 'breast milk' would have been homophonous with the Proto-Tocharian nt.sg. of the demonstratives.

If Pinault and Malzahn are right in analysing TchB *naine* as a dual with the meaning of '(two) nipples', the passage in question may be translated as follows: "[If] one intends to bring a woman under one's control [and] to make [her] nipples excited, *yoñyeṣṣe* (breast) milk [is] to be made as an oblation in the fire: she will become subject". Although the new meaning of TchB *to* would fit well into the content of the fragment, I have to admit that also my new interpretation and etymology remain uncertain.

Conclusion

To summarise, the members of the *oko*-type can be historically analysed as verbal nouns. For some of them, the verb from which they derive is still attested. For all others, we have seen that a verbal root can be reconstructed on the basis of the comparison with the other Indo-European languages. The *oko*-type can ultimately be traced back to the PIE type in *-eh₂* and to old thematic neuter plurals reinterpreted as singulars. The reason behind this reanalysis has been partially explained in the previous paragraph. A thorough analysis of this evolution will be addressed in the following section.

3.8.2.2. On some Tocharian pluralia tantum and singularia tantum

In many languages, some nouns are inflected either only in the plural (like Eng. *clothes* and Lat. *dīvitiae* 'wealth') or only in the singular (like Eng. *dust* and Lat. *vulgus* 'folk'). These words are respectively labelled pluralia tantum and singularia tantum. In other words, they are nothing more than lexical plurals or singulars whose distinctive property is to have either no singular or no plural inflection (Acquaviva 2008: 15-6).

In Tocharian, there are many nouns that belong to these linguistic categories. Some rare cases of masculine pluralia tantum are TchB *kercci* (nom.pl.) 'palace' and TchB *meli*,

A *malañ* (nom.pl.) 'nose'. However, most of the Tocharian pluralia tantum are the outcome of old neuter forms. These lexical plurals generally have collective semantics.

Their paradigm can be exemplified with the noun TchB *mīsa* 'flesh', whose inflection is as follows:

Table III.27. Inflection of TchB *mīsa*

INFLECTIONAL CLASS	NOM. PL.	OBL. PL.	GEN. PL.	STEM
mīsa-type	*mīsa*	*mīsa*	*mīsaṃts*	*misa-*

To this paradigm, we can add the distributive plural *misaiwenta* 'pieces of meat'. This noun is to be linked with PIE **mēms-* / **mems-* 'meat' (cf. Skt. *māṃsá-*, Goth. *mimz*, etc.). Although this etymological connection is evident, some details on the phonetic evolution of this word are still to be clarified (in particular, PIE **-ms-* > **-ns-* would be expected to yield ***-nts-* in Tocharian B). A recent discussion on this word and the related issues can be found in Pinault (2013a: 350-353).

Like TchB *mīsa*, practically all other nouns included in this class have some problems in their historical analysis. For some of them, despite clear Indo-European cognates, the derivational process involved is unclear. Some others lack any clear etymology. In the previous sections, I have already discussed a productive group of pluralia tantum which show a plural in *-na* or *-(a)una*. They are: TchB *särwāna* 'face', TchB *krentauna* 'virtue(s)', TchB *ersna* 'from, beauty', TchB *yasna* 'treasury', etc. For a diachronic analysis of these nouns, I refer to the relevant section (§3.6.1). For a discussion of TchB *āsta* 'bones', see §3.7.1.2.

Other alleged pluralia tantum are: TchB *stmānma* 'pipes, tubes', TchB *proksa* 'grain (?)', TchB *āka* 'grain', TchB *tserekwa* 'deception', TchB *mekwa*, A *maku* 'nails', and TchB *par(u)wa* 'feathers'.

As regards the first noun, it is a hapax legomenon attested in AS6C a5 *wraṃtse stmānma* 'pipes of the water, gutters', but we have no evidence for analysing it as a plurale tantum, since its singular form could simply be unattested. If so, the singular of *stmānma* could be reconstructed as *stanmau**, parallel to TchB *śanmau*, pl. *śanmānma* (see Hilmarsson 1991: 153).

Two words, TchB *proksa* 'grain (?)' and TchB *āka* 'millet', refer to different types of grain. The former has been identified by Schmidt (2002: 3-4) in the document THT2998.3. However, both its meaning and etymology are unknown (see Peyrot 2018: 259-60 for critical remarks). On the other hand, TchB *āka* 'millet' is attested as both a plural and a singular. It is usually compared with Lat. *acus*, *-eris* 'husk' and Gk. ἀχοστή 'barley', both from **h₂eḱ-* 'sharp'. If belonging to this root, TchB *āka* seems to be an original neuter plural from *h₂eḱ-h₂ (see Pinault 2008: 371 and Peyrot 2018: 253-4 for different proposals). As we will see, the fact that TchB *āka* is both a singular(e tantum) and a plural(e tantum) is diachronically relevant.

The other nouns to be discussed end in TchB *-wa*. Pinault (2008: 25) interprets TchB *tserekwa* 'deception(s)' as a plurale tantum. A possible clue for such an analysis lies in the fact that it occurs frequently with TchB *snai* 'without', an adverb which usually combines with singular nouns. If so, it could be translated with a singulative meaning, i.e. 'deception' (but cf. Adams DTB: 810 translates TchB *tserekwa* with a plural meaning, i.e. 'deceptions'). The noun is related to the verb TchB *tsere-ññ-* 'to deceive, trick', whose base seems to be borrowed from Khot. *jsūr-* 'to deceive' (cf. also *jsūrgyā-* 'deception', see Bailey 1979: 115-6; cf. also Hilmarsson 1991a: 87-8).[298]

The two remaining nouns are also those with stronger Indo-European comparisons, even if their derivation and formal shape are not as one might expect. TchB *mekwa*, A *maku* 'nails' (both plural, *pace* Blažek 2001: 192, cf. A321 a2 *tsres maku āṅkaräsyo* "with hard nails and fangs") is connected to the familiar Indo-European noun for 'nail', PIE *h_3nog^hu-(or *h_3nog^{wh}-?) > Lat. *unguis* 'claw', *ungula* 'hoof', Gk. ὄνυξ 'talon', Arm. *ełungn* 'nail', OHG *nagal* 'nail', etc. The unexpected *m-* is usually explained through labial assimilation *$nækwa$ > $mækwa$* (DTB: 502 with references; cf. also Blažek 2001, who postulates a compound *$s\m-h_3nog^h$-μo- or *$sem-nog^h$-μo-). Another problem is the lack of *a*-umlaut (cf. TchB *yākwa* 'body hairs' < *$yækwa$*). I see two possible ways to explain this irregularity. If the plural TchB *-wa* is original, then one could invoke analogical levelling after an unattested singular of this noun. However, if we reconstructed a Proto-Tocharian singular *$mækw$-*, then we would expect *u*-umlaut, as in TchB *or* 'wood' < *$æru$* < PIE *$doru$-*. A second hypothesis is that TchB *mekwa* has been inserted into this inflectional type at a later stage (DTB: 502), when *a*-umlaut ceased to operate. As a matter of fact, this noun is not expected to be alternating in Tocharian because all other Indo-European languages point either to a masculine or to a feminine (Adams l.c.).

The last noun to be discussed is TchB *paruwa / parwa* (?) 'feathers'. This noun is attested four times with different spellings: (1) *parwā* in B282 b1; (2) loc.pl. *parwāne* in B282 a5 (cf. Peyrot 2013: 815 fn.819); (3) *parwa* in B89 a4; (4) *paruwa* in W32 b3. On the basis of these forms, it is unclear if the root vowel was /ə/ or /a/. Indeed, B282 is an archaic text, where the spelling *parwā* seems to stand for /parwa/ (likewise *parwāne* /parwane/, cf. Pronk 2009: 88 and Peyrot 2008: 33-39). The other occurrences are from classical texts: on the one hand, *parwa* in B89 a4 speaks for /pə́rwa/, while, on the other hand, *paruwa* in W32 b3 speaks for /parə́wa/. However, one should note that B89 has various misspelled forms, like *ksā* (b6) for *ksa* 'some, any', *tāmp* (b6) for *tamp* 'that', *träṅko* (a1) for *traṅko* 'sin', *käryaurtto* (b6) for *käryorttau* 'merchant', so that *parwa* might stand for *pārwa* here. In addition, as pointed out by Hannes A. Fellner (apud CETOM: s. THT1105), one is tempting to relate the hapax legomenon TchB *pār* /pár/ 'plumage (?)' in THT1105 b3 to the plural

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[298] Michaël Peyrot (p.c.) pointed out to me that TchB *tser-ek** (pl. *tserekwa*) 'deception(s)' might be compared to TchB *tärr-ek* (TchA *trak*) 'blind; blind person', which is usually considered to be a compound with TchB *ek*, A *ak* 'eye'. One may claim that the verb TchB *tsereññ-* is from *$tserek^{(w)}ññ$-* through assimilation. However, the comparable case of TchB *weñ-* 'to say, speak' < *$wek-ññ$-* shows that degemination of *$-ññ$- > -ñ-* is to be expected.

TchB *parwa*. In light of the above, I consider TchB *paruwa* 'feathers' to be phonologically analysed as /par$\dot{\text{ə}}$wa/.

The historical analysis of TchB *paruwa* is equally uncertain. Indeed, within a comparative framework, the reconstruction of the PIE word(s) for 'feather, wing' is notoriously difficult. As summarised by Pronk (2015a: 335), we can subdivide the Indo-European languages into two groups. Some languages point to **p(t)er-*: Gk. πτερόν 'wing, feather', CS *pero*, Hitt. *partāu̯ar, -aun-*, etc.; some other languages attest an *n*-suffix: Skt. *parṇá-*, YAv. *parəna-*, Lith. *spařnas*, OE *fearn* 'fern'. Latin *penna* < **pet-na* can be put in the middle. Beside these forms, Hittite has an heteroclitic paradigm *pattar, pattan-* (or *pettar, pettan-*; cf. also OW *eterin* 'bird' and *atan* 'wing'), and Sanskrit has a thematised derivative Skt. *pátra-* 'wing', which is also attested in Germanic, cf. OHG *fedara*, OE *feðer*, etc.

Kloekhorst (2008: 659) points out that all these words may be interpreted as showing traces of an old **r/n*-stem. If these forms (or at least a great part of them) are to be ultimately connected with a PIE heteroclitic paradigm, then several analogical adjustments were independently developed in the Indo-European languages. In this context, the position of TchB *paruwa* is unclear, since none of the Indo-European cognate words just mentioned points to the reconstruction of a *u*-stem. Pronk (2015a: 336) reconstructs PIE **pth₂-er-u-* or **pt(h₂)-or-u-h₂* but these are ad hoc reconstructions. It is further unclear to me what the fate of PIE **pt-* would be in Tocharian, but I am not aware of any counterevidence for postulating an outcome PTch **p-*. I therefore see two possible solutions for TchB *paruwa*. The first is reconstructing a root **(s)perH-* 'to move; fly', subsequently extended with a *u*-suffix and inflected as a neuter (as per Adams DTB: 383, on the basis of CS *pero*, ORuss. *pero*, etc.). Otherwise, one can relate TchB *paruwa* to the PIE root **péth₂-* 'to fly' (LIV²: 479). If PIE **pt-* developed PTch **p-*, then TchB *pār* 'feather' (?), pl. *paruwa* could be the outcome of an heteroclitic paradigm **péth₂-ur, *pth₂-uén-*, which, with analogical adjustments, would have become **paru-* in Proto-Tocharian (metathesis of PIE **-ur > *-ru* in word-final position and generalisation of the *r*-allomorph in the weak steam). However, some Indo-European languages clearly speak for the reconstruction of a heteroclitic paradigm with the non-complex suffix **-r/n*, thus **péth₂-r, *pth₂-én-* (Kroonen 2013: 138-9; Pronk 2015a). In this case, it is possible that the outcome of this paradigm has been influenced by nouns of Class I.2 with sg. **-ər(u)*, pl. **-ərwa* (of the type *kwarsär* 'league, vehicle', pl. *kwärsarwa*, see §3.6.1.2 and further Isebaert 2004).

As briefly hinted above, the case of TchB *āka* 'millet' is important, because it is inflected both as a singulare (cf. HWB74(1).3 *āka laś* 'millet has been spent', cf. Ching 2010: 309-10) and a plurale tantum (cf. SI P 136.b a3: *āka lateṃ* 'millets went out', cf. Ching 2010: 324-6). This irregularity in the inflection becomes relevant if related to another class of nouns that show an ending TchB *-a* in both the nominative and the oblique singular.

In this regard, another good example is TchB *wīna* 'pleasure'. This noun occurs several times in the texts, especially in constructions with the verbs *yam-* 'to do' and *kəlp-* 'to obtain' (Meunier 2013: 170-2). However, it is never attested in agreement with any modifier

that may let us understand its gender and number.[299] For this reason, TchB *wīna* could be either a singulare or a plurale tantum (DTB: 654; Malzahn 2011: 85 fn. 7).[300] In Tocharian A, it is matched by *wañi*, but the two words, though related, cannot go back to the same protoform. From a derivational point of view, TchA *wañi* might match Lat. *venia* 'favour, permission' and possibly OIr. *fine* 'kindred' < PIE *μenH-ih_2. However, Tocharian A points to the reconstruction of either *o-vocalism or *$\bar{e}$-vocalism in the root. In the first case, TchA *wañi* can be interpreted as a derivative in *-ih_2 of a noun of the τόμος-type from *μenh_i- 'to desire'.[301] Otherwise, according to Adams (DTB: 654) a vṛddhi-derivative *$w\bar{e}nH$-iyo- might be reconstructed.

As for TchB *wīna*, a mechanical reconstruction would be *unh_2, which is ad hoc and does not account for the internal -*i*- /əy/. A last possibility, though very tentative, is to reconstruct a root noun with long vowel in the strong cases for the proto-language, thus *$\mu \bar{e}nH$-, *unH- 'desire' (nt.?) (see de Vaan 2008: 662 for indirect evidence in support of this reconstruction). From this paradigm, a derivative in *-$i\mu o$- would lead to the Tocharian A noun. Indirect evidence that the non-derived form survived in Tocharian A comes from the denominative verb TchA *wäynās*-, B *wəynask*- 'to venerate' (see Hackstein 1995: 101; Hilmarsson 1991a: 85ff.; DTB: 906). On the other hand, in Tocharian B this ablauting paradigm would have led to aberrant outcomes with palatalisation of *-w- in the strong

[299] Hilmarsson (1991a: 85-6) claims that the nominative singular of TchB *wīna* is not attested. On the contrary, Adams (DTB: 654) gives the nominative as TchB *wīna*, but he does not provide any attestation. A possible example could be found in IT233 a4(=SI B 75 a7): *taiknesa pälskontse wīna erepate*, "thus, the face (is) a pleasure for the mind". That *wīna* is an apposition of *erepate* 'face' is confirmed by the Sanskrit parallel: *tathā manoramaṃ bimbaṃ jarayā hy abhimarditam* "because a face gratifying to the mind is destroyed by old age" (Uv. 1.29c-d; cf. Bernhard 1965: 106; Peyrot 2013: 309 fn.275). See Wilkens, Pinault & Peyrot (2014: 12-13) for yet another possible attestation. I therefore agree with Adams that this noun has an undifferentiated nom.obl. *wīna*. The following attestation may play relevant to the understanding of the number of *wīna*: /// *no wīna tākoṃ* "(how then) pleasure should arise?" (SI B 75 b7, cf. Pinault apud CETOM and Skt. *kā nu teṣāṃ ratir bhavet* "how then should there be pleasure for them" Uv. 1.33b). If this passage has been well understood, then TchB *wīna* is the subject of the sentence, in agreement with *tākoṃ* (3pl. opt.). If so, TchB *wīna* is to be considered as a plurale tantum and not a singulare tantum.

[300] The grammatical number of TchB *kerekauna* 'flood' and TchB *särwāna* 'face' is clear (*contra* Malzahn 2011: 84-5 fn. 7): the former is a singular (cf. *ce_u orocce kerekau(na)* "this great flood" in Or.15009/296 b4, cf. Tamai 2009), and the latter is a plural (cf. *kaklaiksauwa särwan(a)* "the face is wrinkled" in B405 b3, cf. Hilmarsson 1989a; Saito 2006: 225). On these words, see Hartmann (2013: 330 and 369).

[301] TchA *wañi* is said to be masculine on the basis of the agreement in YQ II.13 a4: *mäñcaṃ klyom wañi te napeṃsam* "What is the noble pleasure among the mortals?" (cf. Ji et al. 1998:131). If this passage has been well interpreted and translated, then the adjective *klyom* 'noble', inflected as a masculine singular, agrees with *wañi* (Hartmann 2013: 319; Poucha 1955: 285). However, Peyrot's translation "Oh noble one, is there somehow pleasure among men?" (2018c: 85) is probably to be preferred, because it is perfectly compatible with the Old Uyghur parallel and the question particle TchB *te* usually marks polar questions (cf. also Geng, Laut & Pinault 2004: 364).

cases, lack of it in the weak cases, and different vowels in the two stems (strong stem
**yena vs. weak stem **wəna). As a consequence, the entire paradigm would have been
normalised in favour of the weak stem *wən-, with secondary colouring of *ə to *i,
analogically taken from the strong stem. But this reconstruction is speculative.

Next to TchB wīna, there are a few nouns that may have had an undifferentiated ending
-a in both the nominative and the oblique singular. They are not numerous. According to
Malzahn (2011) and Pinault (2012), the members of this class are TchB yasa, A wäs 'gold',
TchB śalna 'quarrel', TchB weta* 'battle' (fem.), TchB śarka* 'song, music', TchB keta*
'estate', TchB śāmpa* 'conceit; pride'.[302] Their formal structure invites to consider them as
old collective plural forms in PIE *-h_2. This may be true at least for TchB yasa, A wäs
(gender unknown, contra Malzahn 2011: 88) and TchB śalna.[303] Some others, however,
seem to have added the morpheme *-a at a later stage. There are three indications in
favour of this claim. The first is that weta* and keta* do not show a-umlaut (Pinault 2012:
197). The second is that the Tocharian A equivalents of these nouns have different
suffixation and inflection (cf. TchA wac 'battle' ≅ B weta and TchA tsärk ≅ B śarka). The
third is that at least one noun, i.e. TchB keta* 'estate', is a loanword from Prākrit khetta-
(cf. Skt. kṣetra- 'field'; von Hinüber 2011: 183), as pointed out by Tamai (2004: 100-1) and
Pinault (in class and 2012: 197).

Malzahn (2011) has attempted to etymologise some of these nouns, but for many of
them she could not find any clear derivation. For some others, she tried to see either
influences from an "informal styles of Tocharian B" or analogical influences from rhyming
words.[304] I would rather agree with Pinault (2012: 198) that "the most likely assumption
would be that this suffix *-ā (nom. = obl. sg.) was extracted from the old pluralia tantum
of the type TB mīsa 'flesh' […]", and that it became productive for a while.

If so, a cross-linguistic comparison with Latin and Romance languages becomes
significant again. Indeed, in the gradual transition between Classical Latin to modern
Romance languages, several neuter plural forms became feminine singular, such as
Classical Lat. arma, -ōrum 'arms, weapons' (nt.pl.) > Late Lat. arma 'weapon' (fem.sg.) > It.
arma 'weapon' (fem.sg.), Sp. arma 'id.', Port. arma 'id.'. Another comparable type is
Classical Lat. folium 'leaf' (nt.sg.), whose paradigm split into doublets: the original neuter
singular folium was reinterpreted as masculine with the meaning 'paper' (cf. It. foglio, Sp.
hoja, etc.), while the original neuter plural folia was continued as a feminine noun and
maintained the original meaning of the Latin word (cf. It. foglia, Sp. hoja, but cf. Fr. feuille
'leaf; sheet of paper').

Tocharian A points to the same development. In this language, we find just a few
pluralia tantum and, to my knowledge, they cannot be traced back to old neuter plurals.

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[302] Given the fact that the nom.sg. of some of these nouns is not attested, one cannot exclude that
they actually belong to the kantwo-type (with nom.sg. -o, cf. §3.7.1 and Malzahn 2011).

[303] See Malzahn (2011: 99-100) for a probable etymology of the second noun.

[304] For instance, she advocates that TchB śarka derived from the informal style, where PTch
*tsʼərka might have evolved into śarka.

What has happened is that collectives in PTch *-a have been mostly reinterpreted as singulars and transferred to other inflectional classes. Some examples include: TchA *paloṃ* (sg.) vs. TchB *palauna* (pl.), TchA *tārśoṃ* (sg.) vs. TchB *tarśauna* (pl.), and perhaps TchA *araṃ* (sg.) vs. TchB *ersna* (pl.) (see Carling 2009: 15).

A more intricate case is TchA *wmār* 'jewel', a feminine noun with count plural *wmāri*. This noun is matched in Tocharian B by *wamer* 'jewel' (pl. *wmera*), a masculine noun. As is clear, the two Tocharian words differ in both the gender and the inflection. Recently, Pinault (2011: 160-64 and 171-3) has commented on these forms and he has reconstructed an alternating noun with singular **wəmær*, and plural **wəmæra*. After the dissolution of Proto-Tocharian, this word has undergone independent developments in both Tocharian languages. On the one hand, TchB *wamer* took over the masculine gender from the (quasi-)synonym TchB *yetwe* 'ornament'; on the other hand, a more significant development took place in Tocharian A. The plural form **wəmæra* first evolved into **wəmara* (through *a*-umlaut), and then was reanalysed as a feminine singular, thus **wəmara* > TchA *wmār*. The expected singular PTch **wəmær* > TchA ***wmar* vanished. The new singular *wmār* has then been provided with a new countable plural *wmāri*. In my view, Pinault's explanation is impeccable, and it allows us to insert TchA *wmār* into the group of Tocharian A nouns coming from original collective formations. As a general tendency, the reanalysis of old plural forms as singulars has been more extensive in Tocharian A. The reason is relatively easy to envisage. Indeed, after the general apocope of final vowels, these substantives would not have had any clear plural marker. Furthermore, given the fact that the great majority of these nouns had a clear collective meaning, the reanalysis of these plurals as singulars is easy to understand.

3.9. SUMMARY AND CONCLUSION

The main questions addressed in the introduction to this chapter were related to the historical evolution of the feminine and the neuter genders in the Tocharian inflection of the noun. In each section, it has been attempted to discuss and solve several issues related to these questions. In particular, I have identified and commented on those inflectional types that have been variously connected to the feminine gender, in order to trace their evolution from Proto-Indo-European to Tocharian. In parallel, the problematic status of the Tocharian *genus alternans* and its historical link to the PIE neuter has been discussed. These two points will be synthetically recapitulated below.

3.9.1. EVOLUTION OF THE FEMININE IN THE TOCHARIAN NOUN

First, I have tried to understand what the evolution of the PIE inflection in **-eh₂* > **-ā* has been. To this end, I have firstly identified the Tocharian inflectional classes in which we can find synchronic continuants of this reconstructed type. The identified classes are: the *kantwo*-type, the *okso*-type, the *arṣāklo*-type, and, in part, the *oko*-type. Afterwards, I have discussed the etymological and the derivational problems connected to the members of

these classes. The results of my investigation show that Tocharian has inherited and generalised an hysterodynamic ablaut paradigm in *-(e)h₂ throughout the inflection of the nouns. The outcome of this reconstructed paradigm has been maintained in the Tocharian B *kantwo*-type, where the singular paradigm nom. -*o*, obl. -*a* can mirror the PIE opposition between strong stem *-eh₂(-), and weak stem *-h₂-. In Tocharian A, the formal differences between the Tocharian B *okso*-type, *arṣāklo*-type, and *kantwo*-types does not exist. Indeed, the majority of Tocharian A nouns matching these Tocharian B inflectional types are *ā*-stems (< PTch *a*-stems). I have therefore tried to understand whether this mismatch is to be interpreted as an archaism or an innovation. In other words: what was the Proto-Tocharian state of affairs? In order to answer to this question, I have discussed contradictory evidence revealed by a closer comparison between Tocharian A and B. It has been attempted to reconstruct a single inflectional type for Proto-Tocharian, which has tripled in Tocharian B. There are several developments that have caused this split. In short, we can say that some endings and forms are the outcome of specific marks of the *h_2-inflection, some others of the *$\bar{o}n$-inflection, and yet others have originated after sound changes that are peculiar to Tocharian B. Finally, we have seen that some *(e)h₂-stems may have been continued in the so-called *oko*-type, where they have been reinterpreted as alternating.

Second, I have discussed the distribution, the origin, and the evolution of the two *ih_2-formations reconstructed for the proto-language, i.e. the *devī́*-type and the *vṛkī́*-type. We have seen that the poorly represented *śana*-type can be traced back to the former type, with the exception of TchB *śana*, A *śäṃ* 'wife' itself, whose singular paradigm nom. -*a*, obl. -*o* mirrors the PIE stem type *$g^w énh_2$-/-$éh_2$-. On the other hand, the origin of the so-called *aśiya*-type can be traced to a more recent Proto-Tocharian stage, since the members of this class seem to have calqued their inflection from that of the adjectives. In addition, we have also seen that the formal and the functional distinctions between the *devī́*-type and the *vṛkī́*-type ceased to exist in Tocharian: the final result of this merger has led to the merger of these formations, the outcome of which is continued in the *wertsiya*-type.

3.9.2. EVOLUTION OF THE NEUTER IN THE TOCHARIAN NOUN

As for the development of the PIE neuters, we have confirmed the common assumption that they are in principle continued as the Tocharian *genus alternans*. Our attention has been focused on the evolution of both the thematic and the athematic neuter paradigms.

On the one hand, I have investigated the formal merger of the thematic neuter with the masculine inflection in the singular and with the feminine inflection in the plural. This development must have been quite scattered and gradual, since cases of fluctuation in the gender assignment of (Pre-)Proto-Tocharian can be reconstructed. This led to sporadic cases of shifting of inflectional classes and genders of some nouns.

On the other hand, I have also analysed in detail the outcome of some athematic neuters that have played an important role in the creation of new endings (like the alternating plural marker TchB -*na*, A -*äṃ*) and to the evolution of the Tocharian gender

system in general, like the heteroclitic stems in *-*r/n*, the *s*-stems, and the neuter *n*-stems. Special attention has been devoted to the evolution of the heteroclitic stems in *-*r/n* and *-*ur/n*. I have also laid the basis for the postulation of a new sound law PIE *-*ur* > *-*ru* in Tocharian (probably occurred already in the proto-language?), and I have showed that, through this metathesis, we can historically account for (1) the source of *r*-stem nouns with plural in TchB -*wa*, A -*u* (-*wā*, -*unt*), (2) the unexpected *o*-vocalism in some isolated forms, and (3) the origin and the spread of the plural marker TchB -*una*.