Tocharian and Samoyed: on the question of Uralic substrate influence in Tocharian

Warries, A.R.

8 Object marking on the verb

Both Tocharian and Samoyed can mark the object of a verb with a set of special endings. This feature is certainly innovative in Tocharian and could thus result from language contact. In this chapter I investigate the verbal object marking in both Tocharian and Samoyed to determine whether the two phenomena are similar enough to be connected.

8.1 Introduction

As in other Indo-European languages, the Tocharian finite verb is inflected to agree with the subject of the sentence with personal endings. They come in different sets for the active and middle voice, and also depend on the verb tense and mood (e.g., Peyrot 2013: 16–17). These endings are illustrated for Tocharian B in the Table 8.1 below. At their core, they descend from Proto-Indo-European personal endings, although various phonological and analogical processes have reshaped them quite significantly (e.g., Malzahn 2010: 26–48; Peyrot 2013: 409–420 with literature). The table below provides a sample of the personal endings in Tocharian B.

Table 8.1: Tocharian B verbal endings (e.g., Krause & Thomas 1960: 254–256; Malzahn 2010: 28, 38–39; Peyrot 2013: 17).

TB	prs/sbj.act.	prs.mid.	prt.act.	prt.mid.
1sg.	*-w*	*-mar*	*-wa*	*-mai*
2sg.	*-t*	*-tar*	*-sta*	*-tai*
3sg.	*-n*	*-tär*	*-∅*	*-te*
1pl.	*-m*	*-mtär*	*-m*	*-mte*
2pl.	*-cer*	*-tär*	*-s*	*-t*
3pl.	*-n*	*-ntär*	*-re*, *-r*	*-nte*

A second argument of the verb can be marked with an additional set of suffixes, which are placed after the endings that agree with the subject. These suffixes derive from originally clitic personal pronouns that were added to the end of a finite verbal form. While the pronominal elements themselves descend from Proto-Indo-European, their suffixation specifically to the verb is not reconstructible for Proto-Indo-European, and thus constitutes a Tocharian innovation. There are separate suffixes for all three persons in the singular, while the plural has one single undifferentiated form for all persons. The shape of the pronoun suffixes in both Tocharian languages is given in Table 8.2 below.

Table 8.2: The pronoun suffixes of Tocharian A and B.

	TB	TA
1sg.	*-ñ*	*-ñi*
2sg.	*-c*	*-ci*
3sg.	*-ne*	*-n*
pl.	*-me*	*-m*

In his investigation of possible Uralic influence on Tocharian, Peyrot (2019a: 97–99) made a comparison between the pronoun suffixes in Tocharian and the objective conjugation found in Uralic. The objective conjugation is a set of special endings present in a number of Uralic languages, with which transitive verbs can be inflected to refer to the object as well as the subject. The objective conjugation contrasts with the subjective conjugation, which only agrees with the subject. The origins for the objective conjugation are often sought in the addition of earlier clitic object pronouns at the end of the verb form as a suffix (e.g., Honti 1995; Abondolo 1998; Rédei 1998/99), similar to the Tocharian situation. Based on this view, Peyrot made a connection between the objective conjugation and the Tocharian pronoun suffixes (Peyrot 2019a: 97–99). Some of the general similarities between the verbal object marking of Tocharian and Uralic are also briefly remarked upon by Stefan Georg, although he adds that the specifics differ significantly between the two languages families (Georg 2023: 202).

It is clear that both languages have some way to mark objects in their verbal inflection, but do the similarities go beyond that? In order to answer this question, a more detailed look at the Uralic objective conjugation is necessary. This is because its origins are very much debated, including the manner of its formation, the point in time when it came into existence, and its original functional and syntactic scope. According to the theory mentioned above and adduced by Peyrot for a comparison with Tocharian pronoun suffixes, the objective conjugation descends from object pronouns that over time became attached to the verb, but the great similarities of the objective conjugation suffixes and the possessive declension of nouns instead suggest a close connection between the latter two categories (Janhunen 1982: 35). Moreover, a great difficulty with an origin theory of the objective conjugation as a straightforward addition of object clitics is that the objective conjugation endings of the first and second person are phonologically similar to the first and second person pronouns respectively, but agree with a third person object instead. This is illustrated in the table below with personal pronouns and verb endings from Nganasan. The objective endings like 1sg. *-mə* are phonologically related to the pronoun of the corresponding subject, but mark the presence of a third person object. Note that the *-r-* in the second person endings derives from a **-t-* (as does the palatalized *-t'-*).

Table 8.3: Nganasan personal pronouns and verbal endings (Wagner-Nagy 2019: 106, 229, 231).

	pers. pron.	sbc.	sg.obc.	pl.obc.
1sg.	*mənə*	*-m*	*-mə*	*-ńə*
2sg.	*tənə*	*-ŋ*	*-rə*	*-ťə*
3sg.	*sʲitʲ*	*-∅*	*-tu~tʲ*	*-ťü~ťi*
1du.	*mii*	*-mi*	*-mi*	*-ńi*
2du.	*tii*	*-ri*	*-ri*	*-ťi*
3du.	*sʲti*	*-gəj*	*-ði*	*-ťi*
1pl.	*mʲŋ*	*-muʔ~mʲʔ*	*-muʔ~mʲʔ*	*-ńüʔ~ńiʔ*
2pl.	*tʲŋ*	*-ruʔ~rʲʔ*	*-ruʔ~rʲʔ*	*-ťüʔ~ťiʔ*
3pl.	*sʲtʲŋ*	*-ʔ*	*-tuŋ~tʲŋ*	*-ťüŋ~ťiŋ*

The age of the objective conjugation is another contentious issue that intersects with the discussion about its origins, addressed in more detail in section 8.3 below. I conclude that the origins of the objective conjugation lie in the distant past, in pre-Proto-Uralic times, which makes a precise reconstruction particularly difficult. Its general structure in the earliest stages of pre-Proto-Samoyed can still be approximated, however, and it does not quite match the functions of the Tocharian pronoun suffixes.

We must also address the fact that neither the Tocharian pronoun suffixes nor the Uralic objective conjugation can straightforwardly be described as being concerned only with "object marking", as the reality is more complex. We will need a more accurate understanding of the functions of both the Uralic objective conjugation (8.3.3) and the Tocharian pronoun suffixes (8.2.1) in order to arrive at a comparison between the two. The Tocharian pronoun suffixes have recently been investigated in detail by Teigo Onishi (2022), and the objective conjugation of various Uralic languages has been elucidated by the research of scholars such as Irina Nikolaeva (1999a, 1999b, 2001), Elena Skribnik (2001), and Susanna Virtanen (2014). It appears that a more general analysis of both as instances of topical object marking on the verb describes their use more accurately, especially in the case of Uralic, and that this may provide the basis for a functional comparison between the two.

8.2 The Tocharian pronoun suffixes

This section provides an overview of the Tocharian pronoun suffixes based on the recent literature and illustrates their use with a selection of examples sentences. The aspects of the pronoun suffixes that make them stand out as innovative are also addressed, as this provides the main reason for considering the possible effect of influence from other languages like Samoyed.

8.2.1 Functions of the pronoun suffixes

The pronoun suffixes in Tocharian are very versatile. As described by Onishi, "they may represent the direct object, the indirect object with various roles such as source, goal, addressee, recipient, beneficiary, experiencer, and location, the possessor, the subject of a non-finite verb, the argument of a predicate consisting of an adverb or postposition and a verb, and so on" (Onishi 2022: 42). These many functions are illustrated with ample examples by Onishi (2022: 42–76), and I will here cite a selection to provide a general overview with sentences (1-6).

1. Tocharian A (A 101 b5; trsl. Onishi 2022: 43; glosses adapted)
   kuc *yāmwā* *kᵢᵤyal* *pälkse-**ñi***
   what.OBL.SG do:PST.ACT.1SG why torture:PRS.ACT.3PL-1SG
   '... What did I do? Why do they torture **me**?'

2. Tocharian B (THT 107 a7–8; trsl. CEToM, cf. Onishi 2022: 5, 45; glosses adapted)
   *śilāre-**ne*** *oṅkarñai* *wñār-**ne*** *purwar*
   bring:PST.ACT.3PL-3SG porridge:OBL speak:PST.ACT.3PL-3SG accept:IMP.MID.2SG
   wesanmeṃ *pinwāt* *rṣāka*
   1PL:ABL alms sage:VOC
   'They brought **him** the rice porridge [and] said **to him**: "Accept the alms from us, o sage!"'

3. Tocharian A (A 92 a5; trsl. after Onishi 2022: 48; glosses adapted)
   /// *cam* *śkaṃ* *lo* *psumār-**ñi*** *kᵢᵤyal*
   DEM.M.OBL.SG CONJ away take.away:IMP.MID.2SG-1SG why
   lykäly *lykäly* *tuṣt-**ñi***
   fine fine burn:PRS.ACT.2SG-1SG
   '... and take that away **from me**! Why do you burn **me** extremely fine?'

4. Tocharian B (PK NS 34 b3; trsl. Onishi 2022: 59; glosses adapted)
   /// (*āklyi*) *krent* *yāmorne* *yāmtar* *kwri* *aum* *no*
   learning:OBL good:M.OBL deed:LOC do:SBJ.MID.2SG if then CONJ
   ppo *lau* *cmeln=* *alyek* *tākañ-**c*** *āklyi*
   all far birth:LOC other:OBL.SG be:SBJ.ACT.3SG-2SG learning:OBL
   kreṃnt *yāmor*
   good:M.OBL deed
   'If you exercise in good action, then in every distant [future] birth **you** will have (lit. "will be yours") the good action (as) a lesson.'

5. Tocharian A (A 215 a2; trsl. based on Krause & Thomas 1960: 163)
   *ārar-**ñi*** *puk* *niṣpalntu*
   cease:PRT.ACT.3PL-1SG all belonging:NOM.PL
   'All my possessions have come to an end.'

6. Tocharian B (THT 11 a4; verse; trsl. based on Krause & Thomas 1960: 163)
   laute *mā* *kätkoytär-**me***
   moment NEG pass:OPT.MID.3SG-PL
   '[The right] moment must not be passed (by) **by you** (pl.).'

The common functions of the pronoun suffixes align with those otherwise carried out by the Tocharian oblique/accusative case—mainly direct object—and the genitive-dative case—indirect object, possessor—(Krause & Thomas 1960: 162–163). Onishi further shows that, when the direct and indirect object of a verb are both pronominal, the pronoun suffixes refer to the indirect object, not to the direct object; the latter may then only be referred to with an independent pronoun, although it can also be omitted entirely (Onishi 2021: 155–159, 177). The pronoun suffixes are thus more strongly associated with the indirect object than with the direct object.

A pronoun suffix sometimes also co-occurs with an overt antecedent. For example, a pronoun suffix marking a direct object can appear within the same sentence where that object appears as a noun. Peyrot (2019a: 97–99) proposed to analyse this as a form of object agreement. Onishi has argued that there may be three different phenomena at play, and that all three can be analysed with reference to the concept of topicality (Onishi 2022: 182–253).

First, if the pronoun suffix co-occurs with an object in its normal position after the subject and before the verb, the pronoun suffix may indicate that this object functions as a secondary topic (Onishi 2022: 217–252). Second, the object may appear before the subject, in which case it functions as the primary topic (Onishi 2022: 197–207). Last, the object may appear after the finite verb that bears the pronoun suffix if it constitutes a discourse-old primary topic (Onishi 2022: 207–210). Since the use of a pronoun suffix in combination with an overt object is not particularly common, Onishi hypothesises that this strategy for making objects as secondary or primary topics never fully grammaticalized (Onishi 2022: 193). Sentences (7) and (8) provide examples of co-occurrence of a pronoun suffix and an object that it references or agrees with.

7. Tocharian A (A 13 a1–2; trsl. based on CEToM, Onishi 2022: 220; glosses adapted)

kaśśi	*yokañi*	*pälkāt*	*cesäm*	*amoktses*	*kātse*
hungry	thirsty	see.PRT.MID.3SG	DEM.M.OBL.PL	artisan:OBL.PL	near

kälymāṃ	*cesm-äk*	*puk*	*śtwar*	*śälkās*	*pokeyo*
stand:PRS.PTC	DEM.M.OBL.PL-EMPH	all	four	together	paw:SG.INS

wa(*ltsurä*)*ṣ*	***poñcäs***	*kosā-**m***	*tāpa-**m***	*śkaṃ*	*lo*
crush:ABS	all:OBL.PL	kill:PRT.ACT.3SG-PL	eat:PRT.ACT.3SG-PL	and	PFV

'Hungry and thirsty, it [i.e., a newly resurrected lion] saw these artisans standing nearby, and crushing those very four all together with [his] paw, he killed **them all** and ate **them** up.'

8. Tocharian B (THT 88 a1; trsl. after Huard 2022: 382; cf. Onishi 2022: 223; glosses adapted)

tumeṃ	*durmukhe*	*brāhmaṇe*	***uttare*(*-ṃ*)**[97]	***śamaśke-ṃ***
thereupon	PN	brahmin	PN:OBL.SG	boy:OBL.SG

kärwāṣṣai	*witsakaisa*	*räskare*	*tsopaṃ-**ne***
reed:ADJZ.F.OBL.SG	root:SG.PER	sharply	hit:PRS.ACT.3SG-3SG

'Thereupon the brahmin Durmukha hits **the boy Uttara** sharply with a reed root.'

To my knowledge, there is no indication that (secondarily) topical objects *require* the presence of a pronoun suffix if they remain themselves present in the sentence. When a nominal object, indirect object, or possessor is particularly topical it can be completely replaced by a pronoun suffix. One could thus say that highly topical zero anaphora tend to trigger object agreement with a finite verb in the form of a pronoun suffix, and that especially topical indirect objects and possessors do the same.

However, there are also some instances of zero anaphora. In the following sentence, the two sisters Nandā and Nandabalā are speaking to a disguised Indra about whom they should give a special porridge that they have made as alms to. The direct object of the verb *aiskem* 'we give' is not overtly present in the sentence, nor does it host a pronoun suffix indicating the indirect object, which is instead present as an independent pronoun *cwi* 'to him'.

[97] The final *-ṃ* is absent in the manuscript, but grammatically expected.

9. Tocharian B (THT 107 a9; trsl. CEToM; glosses adapted)

nānda	*nandābala*	*weñāre*	*se*	*ci-sa*
PN	PN	say:PRT.ACT.3PL	REL.NOM.SG	2SG.OBL.SG.PER

śpālmeṃ	*tākaṃ*	*cwi*	*aiskem*
excellent	be:SBJ.ACT.3SG	3SG.M.GEN.SG	give:PRS.ACT.1PL

'Nandā and Nandabalā said: he who is better than you, to him we give [it]'

After having been sent by Indra to the god Brahma, Nandā and Nandabalā go from Brahma to the Śuddhāvāsa-gods, also disguised as sages. The two sisters offer the porridge to them, but in case there be others that are more excellent, they ask:

10. Tocharian B (THT 107 b3–4; trsl. CEToM; glosses adapted)

wesi	*pokses*	*posa*	*śpālmeṃ*	*rṣāke*	*intsu*
1PL:GEN	proclaim:IMP.ACT.2PL	all:PER	excellent	sage	which

ste	*cwi*	*ka*	*ṣ*	*mant*	*klāskem*
be:ACT.3SG	DEM.M.GEN.SG	indeed	and	thus	bring:PRS.ACT.1PL

'Tell us which sage is better than all, so that to him indeed we bring [it].'

In neither of these sentences where the porridge is the object do we see any pronoun suffix on the verb. It is unclear to me if, in these examples, the presence of the indirect object pronoun *cwi*, suppresses the use of a pronoun suffix on the verb, similar to how pronoun suffixes refer to the indirect object rather than to the direct object if both are available. A more complete account of Tocharian sentences without an overt object is still a desideratum (cf. Onishi 2022: 252), and I am unable to provide a full analysis here.

8.2.2 Origins and status of the pronoun suffixes

As seen in the example sentences in the previous subsection, the Tocharian pronoun suffixes are mainly used to anaphorically refer to an entity mentioned in the surrounding context. Most often, they appear in a sentence instead of the nominal object constituent that they refer to, but sometimes they also co-occur with noun phrases.

The shape of the first- and second-person singular suffixes is quite similar to that of the corresponding independent pronouns. The third person singular and general plural forms, on the other hand, do not have direct counterparts elsewhere in the Tocharian pronominal system (cf. Peyrot 2019a: 98). All pronoun suffixes can be derived from Proto-Indo-European sources, however, and with exception of the third person singular, all can be reconstructed as clitics at an early stage. The basic reconstructions are given in the table below; for more extensive discussions on the specifics of the reconstructions and developments in Tocharian, I refer to Onishi (2022: 38–41) with literature.

Table 8.4: Tocharian A and B pronoun suffixes and their possible origins.

	TB	TA	PT	PIE
1sg.	*-ñ*	*-ñi*	**-nʸə*	**-me*
2sg.	*-c*	*-ci*	**-tʸə*	**-tu̯e*
3sg.	*-ne*	*-n*	**-ne*	**Hono-*
pl.	*-me*	*-m*	**-me*	**-smos*

The investigation recently carried out by Onishi has provided us with a more detailed analysis of the functions and behaviour of the pronoun suffixes in Tocharian from a synchronic perspective. The reasons why the Tocharian pronoun suffixes differ from similar pronominal clitics in other Indo-European languages are not yet fully understood, however, as a full diachronic account of their development is still lacking.

We may still attempt a comparison with the Uralic objective conjugation, even if only to see what kind of similarities or differences we can identify, and how we might approach a proper diachronic reconstruction. Peyrot (2019a: 97–99) has made a first pass at such a comparison already, noting some of the ways in which Tocharian pronoun suffixes are unusual among ancient Indo-European languages, and pointing out some parallels with the objective conjugation. One important feature is that pronoun suffixes form a single phonological word with the verb to which they are attached, as is apparent from the stress placement in Tocharian B (cf. chapter 5). The same is suggested by their participation in morphophonological alternations and assimilations in Tocharian A (Peyrot 2019a: 97, Onishi 2022: 32). In example (11), the final consonant of the verb *tāṣ* 'be:SBJ.ACT.3SG' is fused with the initial consonant of the 2sg. pronoun suffix *-ci* to yield *tāśśi*.

11. Tocharian A (A 81 a3; trsl. Onishi 2022: 32; glosses adapted)

///	(*mäski*)*tac*	*kakmuräṣ*	*träṅkäṣ*	*tärkor*
	prince:ALL	come:ABS	speak:PRS.ACT.3SG	permission
tāśśi		*mäśkit*	*pläc*	*w*(*aṣtäṣ*) ///
be.SBJ.ACT.3SG-2SG		prince	go.out:IMP.ACT.2SG	house:ABL

'He (scil. the king) came to (the prince) and says: "**You** shall have permission, o prince. Become (a monk!) (lit. go out (from the house])!) ..."'

Onishi further specifies that the suffixes do or do not participate in assimilation depending on the type of word they are attached to. While a combination of a finite verb ending in *-ṣ* and the pronoun suffix *-ci* for the second person singular results in an assimilated cluster TA *-śś-*, as in example (11) above, the same combination resulting from a participle in *-ṣ* and the pronoun suffix *-ci* surfaces as *-ṣc-* (Onishi 2022: 32–33).

12. Tocharian A (A 125b2; trsl. Onishi 2022: 32; glosses adapted)

laltuṣ-ci	*cesäm*	*pälkoräṣ*	*nu*	*tmä* ///
go.out.PRT.PTC.M.NOM.PL-2SG	DEM.PL.OBL	see.ABS	CONJ	...

'[Those who] went out from you ... But having seen them, ...'

The behaviour of the pronoun suffixes is mixed as regards to their status as verbal endings or clitics, and that any analysis will depend on one's theoretical framework (Onishi 2022: 34–35). Pronoun clitics in Tocharian A and B furthermore show differences in behaviour in some crucial ways, since the Tocharian A use of the pronoun suffixes on various non-finite verbs, like in example (12), is more canonically clitic-like than the Tocharian B ending-like restriction to finite verbs only (ibid.). This complicates a clear-cut analysis. Based on their high selectivity for (finite) verbs in both Tocharian languages, I refer to the Tocharian pronominal elements under discussion in this chapter as pronoun suffixes rather than pronoun clitics.

8.2.3 Similar pronominal elements in other Indo-European languages

The Tocharian pronoun suffixes descend from Proto-Indo-European pronominal clitics, as discussed above. In this subsection we will functionally compare the Tocharian pronoun suffixes with similar pronominal clitics in other ancient Indo-European languages, in order to get a better view of the position of Tocharian within the family in this regard. Onishi briefly summarizes the main differences (Onishi 2022: 6), and here I will illustrate each point with some examples.

I. Only one pronoun suffix may appear in a sentence in Tocharian, while multiple pronominal clitics may be found in a single sentence in other ancient Indo-European languages Latin and Hittite, as illustrated in the examples below.

13. Latin (Cic. ad Att., II, 19, 5; from Meillet & Vendryes 1948: 580)

Caesar	***mē***	***sibi***	*vellet*	*esse*	*legātum*
PN	1SG.ACC	REFL.DAT.SG	want:SBJ.IMPF.3SG	be.INF	legate:ACC

'Caesar wants **me** to be **his** legate.'

14. Late Hittite (CTH 42.A KBo 5.3+ obv. ii 8; from Lyutikova & Sideltsev 2020: 34)

*nu=**šmaš**=**at***	*lē*	*āra*	*i̯yenzi*
CONN=2PL.DAT=3PL.ACC	PROHIB	right	do:PRS.3PL

'They will not make **them** right **for you**.'

There are other Indo-European languages that allow only a single infixed or suffixed pronominal element per verb, such as Old Irish. Griffith has argued that their analysis as truly pronominal is only valid for earlier stages of the language, and that in synchronic Old Irish, they may rather be interpreted as agreement affixes instead (Griffith 2011). The questions of their classification bear some resemblance to the Tocharian situation, where the pronoun suffixes are variously considered to be clitics or agreement markers.

II. There is no contrast between the way a direct object and an indirect object is referred to using a pronoun suffix in Tocharian, whereas many other ancient Indo-European languages like Sanskrit, Greek, and Latin, do show such a difference. In Hittite, as in Tocharian, no difference is found in the first- and second-person enclitic pronouns. Only the third person anaphoric enclitic pronoun has separate case forms, including a nominative (Hoffner & Melchert 2008: 135–136). These differences in the clitic pronoun systems are illustrated in Table 8.5.

Table 8.5: Pronominal clitics in ancient Indo-European languages.

	1sg		2sg		3sg	
	acc.	dat.	acc.	dat.	acc.	dat.
TB	*-ñ*	*-ñ*	*-c*	*-c*	*-ne*	*-ne*
Hitt.	*=mu*	*=mu*	*=tta*	*=tta*	*=an*	*=šši/šše*
Skt.	*mā*	*me*	*tvā*	*te*	*sīm*	
GrH	*me*	*moi*	*se*	*soi/toi*	*he/min*	*hoi*
Lat.	*mē*	*mihi*	*tē*	*tibi*	*sē*	*sibi*

The lack of any formal difference between accusative and dative clitics in Tocharian is reminiscent of Old Irish, where the normally accusative suffixed and infixed pronouns can combine with the substantive verb 'be' to express a dative function, e.g., the 2sg. -(*u*)*t* in *táthut* 'you (sg.) have' and *ro-t·bia* 'you (sg.) shall have'. This use is similar to, e.g., TB *nesañ-c* 'you (sg.) have' (THT 144a1). In Old Irish, this is rare with other verbs, but does sometimes occur, such as in *do-t·árfas* 'it has appeared to you (sg.)' (Thurneysen 1946: §409, §430).

Normally, the pronoun suffixes and infixes of Old Irish express only the object of a transitive verb, as in *ar-ro-t·neithius* 'I expected you (sg.)', or a first- or second-person subject of a passive verb; e.g., *carthair* 'he/she is loved' but *no-t-charthar* 'you (sg.) are loved' (Thurneysen 1946: §409–4010, §540). The latter use is contrary to that of Tocharian, where a pronoun suffix attached to a passively used middle can indicate the agent instead (cf. example 6 above, repeated here as 15)6.

15. Tocharian B (THT 11 a4; verse; trsl. based on Krause & Thomas 1960: 163)

laute	*mā*	*kätkoytär-**me***
moment	NEG	pass:OPT.MID.3SG-PL

'[The right] moment must not be passed (by) **by you** (pl.).'

III. Clitics in ancient Indo-European languages usually appear in the second position in a clause, the so-called Wackernagel position (after Wackernagel 1892). In Tocharian B, pronoun suffixes instead only appear after a finite verb, while in Tocharian A they can attach to non-finite verbs as well. This is more in line with the behaviour of pronominal clitics in for instance the Romance languages, where they always attach to the verb (e.g., Viti 2016: 19–20). The Tocharian placement of the pronoun suffixes contrasts with the placement of pronominal clitics in Latin (13) and Hittite (14) already cited above, and in Sanskrit (16) and Ancient Greek (17).

16. Vedic Sanskrit (RV 7.63.3c from Hale 1987: 80)

*eṣá=**me***	*deváḥ*	*savitā́*	*cachanda*
DEM.M.NOM.SG=1SG.DAT	god	PN	appear:PF.ACT.3SG

'He appeared **to me** as the god Savitar

17. Ancient Greek (Hdt. 1.35.2 from Goldstein 2016: 54)

Κροῖσος=δέ=μιν	ἐκάθηρε
PN=PTCL=3SG.M.ACC	cleanse:AOR.ACT.3SG

'Croesus purified **him**.'

A number of conjunctions in Tocharian do tend to appear in the second position, such as TA *nu*, TB *no* 'and, but' (e.g., Pinault 2008: 523–524). This is illustrated with an example from Tocharian B in (18), where *mā* 'not' stands at the beginning of a new clause, followed by the clitic conjunction *no*. The behaviour of such particles indicates that second position in Tocharian was still available for clitics, but not for pronominal ones, a fact that might be significant.

18. Tocharian B (THT 3 b6; trsl. Adams 2013: 370)

waimenetse	*śaul*	*totk=*	*āttsaik*	*su*	***ṣp***	*laklempa*
difficult	life	short	certainly	DEM.M.NOM.SG	and	sorrow:COM

rittowo	*mā*	***no***	*wnolmy*	*aikenträ*
attach:PRT.PTC.M.NOM.SG	NEG	CONJ	creature.PL	know:PRS.MID.3PL

'Life is difficult and short **and** (it [is]) bound up with suffering, **but** creatures do not notice.'

We have now seen that the Tocharian pronoun suffixes can fulfil a wide range of functions, not restricted to object-marking. Despite this, they show no formal differentiation to go along with their functional flexibility. They descend from Proto-Indo-European clitic pronouns, but their fixed position after the finite verb is an innovation. In order to make a comparison with Uralic, we will now turn to a discussion of the objective conjugation.

8.3 The Uralic objective conjugation

The specifics of both the formal and functional reconstruction of the objective conjugation are controversial. To properly understand the Uralic objective conjugation, a lot of information from various branches of Uralic needs to be reviewed and discussed. In this section, I will address some fundamental questions pertaining to the age and formation of the objective conjugation, necessary for a serious comparison with the Tocharian pronoun suffixes.

8.3.1 General overview of the objective conjugation

In most branches of Uralic there exists a set of verbal endings used to form a so-called objective conjugation (also known as the "definite" or "determinate" conjugation) beside another set that functions as the subjective conjugation ("indefinite", "indeterminate"). The endings of the objective conjugation indicate not only the person and number of the subject, but also at least the involvement of an object as well, while the subjective conjugation only refers to a subject. Such a split in conjugations is found on the eastern side of the Uralic language family in Samoyed, Mansi, Khanty, and Hungarian, and also in Mordvin on the western side. In the languages that have both conjugations, intransitive verbs are typically only used with the subjective conjugation, but transitive verbs can be inflected with either subjective or objective endings. The specifics of the objective conjugation differ both structurally and functionally from language to language, which complicates a reconstruction of the system to Proto-Uralic and renders it a contentious issue (e.g., Abondolo 1998: 29–30; Keresztes 1999: 102; Aikio 2022a: 18).

Even the most basic question, the degree to which the objective conjugation existed in Proto-Uralic already is disputed. Janhunen (1982) states that the objective forms may have existed in Proto-Uralic for all persons, perhaps as an elaboration from an earlier pre-PU 3sg. form only, but that the objective conjugation could also have been dialectally restricted. Keresztes (1999) regards the objective conjugations in Mordvin and the other Uralic language as largely independent innovations, but like Janhunen, he does allow for the possibility that the third person singular objective form already existed; cf. also Körtvély (2005: 44). It seems to be particularly the Mordvin objective conjugation that precludes the establishment of this category as inherited from Proto-Uralic, well as the

notion that it should have been lost in Saami, Finnic, Mari, and Permic (so, strongly, Havas 2004). Compare the following recent statement on the matter by Aikio in his handbook chapter on Proto-Uralic (with references to arguments from other scholars):

> "The Mordvin system of objective conjugation differs so radically from the others that it is highly probably an innovation (Keresztes 1999), but the objective conjugation in the easternmost branches [viz., Samoyed, Mansi, Khanty and Hungarian] might nevertheless represent a Proto-Uralic archaism that was lost in the more western branches (Janhunen 1982: 35). On the other hand, it is equally possible that the Saami, Finnic, Mari and Permic branches possess a more archaic verb system, and [that] the definite conjugation in the eastern branches is an areal innovation (Salminen 1996)." (Aikio 2022a: 18)

The existence of at least a third person singular objective conjugation suffix "**-sV*" in Proto-Uralic is often assumed, and this suffix is also the central character in discussions on the origin of the entire conjugation type. According to one theory, it is effectively a suffixed object pronoun, cognate to, e.g., SaaN *son*, Fi. *hän*, Hu. *ő*, etc. (e.g., Honti 1995, 1998/99; Rédei 1998/99; Abondolo 1998: 29–30). The other theory equates this same suffix with the third person singular possessive suffix PU **-sA*, found in, e.g., Fi. *-nsa*, Hu. *-(j)a*, PS **-tA* (Janhunen 1982; Zhivlov 2023: 155–156). The vowel actually corresponds to that of the possessive suffixes in those branches that retain the vowel quality more faithfully, so that the reconstruction often given as **-sV* can reasonably be written as **-sA* instead. At least on the surface, this strengthens that particular connection. And indeed, the objective conjugation suffixes are on the whole similar to the possessive suffixes used on nouns, although to which degree the two sets are really identical differs from language to language (cf. below).

To better understand the issues associated with the objective conjugation, we must take a close look at the objective conjugation paradigms in the individual languages, as well as their relation to the possessive declension paradigm on the one hand, and the subjective conjugation on the other. In the end, close scrutiny and comparison of the individual languages should inform us on the probable age of the suffixes, and also their likely origin. It is my opinion that the Mordvin objective conjugation is at its core not so alien as has been claimed, and that it in fact holds important information regarding the reconstruction of the objective conjugation endings in Proto-Uralic. It should be taken into account by any attempt to explain the origin of the objective conjugation endings from earlier syntactic constructions, an endeavour that will mostly fall outside the scope of the present investigation.

The two main issues regarding the Uralic objective conjugation are (1) whether it existed in Proto-Uralic already, and if so, whether it constituted a full paradigm or only the third person singular, and (2) whether it originates from suffixed object pronouns or

from possessive inflection. To practically work towards solving these issues, I think the following set of questions should be addressed:

1. Do the languages with an objective conjugation show non-trivial formal and structural correspondences?
2. Do the suffixes of the objective conjugation match either possessive suffixes or object pronouns in any consistent and non-trivial way?
3. And finally, is a relation to either the possessive declension or suffixed object pronouns functionally understandable?

I will address especially (1) and (2) on the basis of a closer look at the objective conjugation paradigms found in the individual branches (starting with Samoyed, then Mansi, Khanty, Hungarian, Mordvin), and also a brief summary of the verbal inflection found in the remaining branches (Saami, Finnic, Mari, Permic). This is the topic of subsection 8.3.2. From the discussion of the objective conjugation paradigms in especially Samoyed, Mansi and Mordvin, I conclude that there is indeed an additional corresponding formal feature beyond the third person singular suffix *-*sA*, namely the object plural *-*n*-, and that the two shared features together are non-trivial. Some of the functional considerations needed to address question (3) will be discussed separately in subsection 8.3.3, but its proper resolution lies beyond the scope of this chapter and is left to future research.

8.3.2 Formal reconstruction of the objective conjugation

There is no satisfactorily complete and detailed historical overview of the objective conjugation and related issues available at this moment. In this subsection I will go over the forms and structure of the objective conjugation paradigms as they occur in each of the Uralic branches that have this inflectional category. In some cases, I will also supply reconstructions of the objective conjugation paradigms to the lower-level protolanguages, in order to improve understanding. To make the similarities with possessive declension suffixes apparent, I will list those together with the objective conjugation. The subjective conjugation endings will be given as well, to make the formal contrasts and similarities between the two sets of endings clear. The tables are all composed from the information in the grammars of the various languages under discussion, recombined and rearranged for illustrative purposes. Overviews of conjugations in various Uralic languages can be found in, e.g., Keresztes (1999: 15–21), Körvtély (2005: 27–42), Trosterud (2006: 143ff.).

Table 8.6: Endings of the Proto-Uralic subjective conjugation, objective conjugation (singular object) and possessive declension (singular and plural possessum) (Aikio 2022a: 16, 18; Zhivlov 2023: 156-157).

	sbc.	obc.	sg.poss.	pl.poss.
1sg.	**-m, *-∅?*	**-mi*	**-mi*	**-ni*
2sg.	**-n, *-t?*	**-ti*	**-ti*	**-nti*
3sg.	**-∅*	**-sA*	**-sA*	**-nsA*
1du.	**-mijn*	**-mijn*	**-mijn*	**-nijn*
2du.	**-tijn*	**-tijn*	**-tijn*	**-ntijn*
3du.	**-ki*	**-sAjn*	**-sAjn*	**-nsAjn*
1pl.	**-mAk/t*	**-mAk/t*	**-mAk/t*	**-nAk/t*
2pl.	**-tAk/t*	**-tAk/t*	**-tAk/t*	**-ntAk/t*
3pl.	**-t*	**-sAk/t*	**-sAk/t*	**-nsAk/t*

8.3.2.1 Samoyed

Within Samoyed, the objective conjugation paradigm is most extensive in the northern Samoyed languages like Tundra Nenets and Nganasan. In these languages, not only the number and person of the agent, but also the number of the object is marked with the verbal ending. I will start this discussion with the Tundra Nenets forms (Table 8.7) The possessive and objective endings are almost completely identical in this language, with apparently the exception of the plural. However, even there the difference is merely due to an interaction between the plural suffix **-j-* and the aorist suffix **-ŋA-*, which together yield Tundra Nenets *-yə-*. The verbal and possessive personal endings themselves would thus originally have been the same. The dual possessum and dual object are both marked with NeT *-xəyu-* (PS ±**-kəńəj-*), an extension of the dual suffix NeT *-xəh* (PS **-kəń*).

Table 8.7: Tundra Nenets endings of the subjective conjugation, possessive declension and objective conjugation (Nikolaeva 2014: 67, 78–80).

	sbc.	sg.poss.=obc.	du.poss.=obc.	pl.poss.	pl.obc.
1sg.	*-d°m*	*-w°*	*-xəyu-n°*	*-V-n°*	*-yə-n°*
2sg.	*-n°*	*-r°*	*-xəyu-d°*	*-V-d°*	*-yə-d°*
3sg.	*-∅*	*-da*	*-xəyu-da*	*-V-da*	*-y°-da*
1du.	*-nyih*	*-myih*	*-xəyu-nyih*	*-V-nyih*	*-y°-nyih*
2du.	*-dyih*	*-ryih*	*-xəyu-dyih*	*-V-dyih*	*-y°-dyih*
3du.	*-x°h*	*-dyih*	*-xəyu-dyih*	*-V-dyih*	*-y°-dyih*
1pl.	*-waq*	*-waq*	*-xəyu-naq*	*-V-naq*	*-y°-naq*
2pl.	*-daq*	*-raq*	*-xəyu-daq*	*-V-daq*	*-y°-daq*
3pl.	*-q*	*-doh*	*-xəyu-doh*	*-V-doh*	*-y°-doh*

The first-person endings of the plural and dual objective conjugation show a nasal element *-n-* rather than *-m-*, which results from a fusion of the possessed plural suffix PU **-n* and the first person possessive suffix starting with **-m*; e.g., 1.g. pre-PU **-n-mi* > PU **-ni* > PS **-nə* > NeT *-n°* (Janhunen 1982: 31). The plural suffix *-n-* is not found in the second- or third person possessive suffixes, but it may originally have been present there as well, since its loss would have been the regular development of an **-n-* between two consonants. With the addition of the plural marker **-j*, the resulting cluster in, e.g., pre-PS 3sg. **-jntA* would have been regularly simplified to PS **-jtA*. The same type of changes caused the morphophonological alternation of the cluster-initial suffixes like present participle suffix **-ntA* with **-tA* after consonant-final stems (cf., e.g., Janhunen 1998: 468 on this phonological rule).

Just like Tundra Nenets, Nganasan shows the presence of the plural suffix **-j* in these paradigms, since the sequence **-jt-* yielded *-ťʼ-* and **-jn-* yielded *-ń-*; cf. the paradigm below (based on Wagner-Nagy 2019). The dual possessive and dual objective endings only differ in the syllabicity of the palatal of the dual suffix. The possessive dual suffix *-kəj-* is more original and derives directly from PS **-kəń*, while the dual element of the objective conjugation, *-kəi-* from **-kəń+əj*, is derived with the added, analogical introduction of plural **-j-*, like in Tundra Nenets *-xəyu-* (Wagner-Nagy 2019: 230).

Table 8.8: Nganasan endings of the subjective conjugation, the possessive declension and the objective conjugation (Wagner-Nagy 2019: 204–205, 229, 231).

	sbc.	sg.poss./obc.	du.poss.	du.obc.	pl.poss./obc.
1sg.	*-m*	*-mə*	*-kəj-ńə*	*-kəi-ńə*	*-ńə*
2sg.	*-ŋ*	*-rə*	*-kəj-ťə*	*-kəi-ťə*	*-ťə*
3sg.	*-∅*	*-tu~ʲ*	*-kəj-ťü~i*	*-kəi-ťü~i*	*-ťü~i*
1du.	*-mi*	*-mi*	*-kəj-ńi*	*-kəi-ńi*	*-ńi*
2du.	*-ri*	*-ri*	*-kəj-ťi*	*-kəi-ťi*	*-ťi*
3du.	*-kəj*	*-ði*	*-kəj-ťi*	*-kəi-ťi*	*-ťi*
1pl.	*-mu~ʲʔ*	*-mu~ʲʔ*	*-kəj-ńü~iʔ*	*-kəi-ńü~iʔ*	*-ńü~iʔ*
2pl.	*-ru~ʲʔ*	*-ru~ʲʔ*	*-kəj-ťü~iʔ*	*-kəi-ťü~iʔ*	*-ťü~iʔ*
3pl.	*-ʔ*	*-ðu~ʲŋ*	*-kəj-ťü~iŋ*	*-kəi-ťü~iŋ*	*-ťü~iŋ*

The *-r-* in the second person forms of the subjective conjugation and the singular objective conjugation and possessive endings results from a change from PU **-t-* to PS **-r-* in intervocalic position after the second syllable. Comparison with the Tundra Nenets endings shows that the subjective conjugation second person endings of the dual and plural were affected by the NeT *-d-* (PU/PS **-t-*) that was preserved in the plural objective suffixes due to it being part of a cluster with **j* and/or **n* at the time of the change of intervocalic **-t-* to **-r-* (cf. above). The NeT *-d-*, Ng. *-t-* (PS **-t-*) in the third

person forms derive from PU **s* by regular sound law as well. The origin of the 3pl. suffix NeT *-doh*, Ng. *-ðu~ɟŋ* from PS **ton* is, to my knowledge, uncertain. It can be reconstructed mechanically as PU **son*, according to Körtvély (2005: 72), from a pronominal source where the final **-n* marks plurality, but the details are unclear to me.

The other northern Samoyed languages Forest Nenets and both Forest and Tundra Enets show essentially the same picture. The singular and plural objective conjugation endings of these languages are given in the next table.

Table 8.9: Forest Nenets (based on Burkova 2022: 688), and Forest and Tundra Enets objective conjugation (from Khanina & Shluinsky 2023: 820).

	NeF sg.	NeF pl.	EnF sg.	EnF pl.	EnT sg.	EnT pl.
1sg.	*-m°*	*-n°*	*-a, -u, -b*	*-n*	*-a, -ɔ, bo*	*-no*
2sg.	*-ɬ°*	*-t°*	*-r*	*-z*	*-ro*	*-zo*
3sg.	*-ta*	*-ta*	*-za*	*-za*	*-za*	*-za*
1du.	*-j°*	*-j°*	*-jʔ, -biʔ*	*-ɲʲi*	*-jʔ, -biʔ*	*-ɲʲiʔ*
2du.	*-ɬy°*	*-ty°*	*-riʔ*	*-ziʔ*	*-riʔ*	*-ziʔ*
3du.	*-ty°*	*-ty°*	*-ziʔ*	*-ziʔ*	*-ziʔ*	*-ziʔ*
1pl.	*-maq*	*-naq*	*-aʔ, -baʔ*	*-naʔ*	*-aʔ, -baʔ*	*-naʔ*
2pl.	*-ɬaq*	*-taq*	*-raʔ*	*-zaʔ*	*-raʔ*	*-zaʔ*
3pl.	*-tuŋ*	*-tuŋ*	*-zuʔ*	*-zuʔ*	*-zuʔ*	*-zuʔ*

The Forest Nenets and Enets objective conjugation paradigms are basically the same as those of Nganasan and Tundra Nenets, and thus do not need to be discussed further. The northern Samoyed languages together provide a very clear picture of the objective conjugation, with three sets of endings for singular, dual and plural objects.

In the southern Samoyed languages Selkup and Kamas, the objective conjugation only marks the presence of an object, not its number. According to, e.g., Körtvély (2005: 70) and Wagner-Nagy and Szeverényi (2022), the lack of number agreement in the southern Samoyed languages means that the plural and dual object forms in northern Samoyed are a later innovation, after the end of the Proto-Samoyed period. I consider it more likely that part of the objective paradigm was lost in Selkup and Kamas (the Mator verbal endings are not well-attested), and that plural and dual object forms were already in existence in Proto-Samoyed, inherited and maintained in northern Samoyed (so Janhunen 2002: 81). A similar situation can be observed in Northern Khanty, which has lost the dual object forms; nevertheless, on the basis of the other Khanty varieties where dual object forms are found, their absence is taken as an innovation, a simplification (Honti 1976: 94; Csepregi 2023: 716).

Selkup and Kamas also show innovations in their dual and plural possessive declensions: Kamas does not mark possessed dual at all, and it uses the clearly innovative

suffix *-zaŋ-* in the plural; and both Selkup and Kamas lost the first-person plural possessive suffixes with an **-n-* (found in northern Samoyed and in Mator, and inherited from Proto-Uralic), and they generalized the second person *-l-* (PS **-r-*) to plural forms. With these changes, the system was reorganized to be more transparently agglutinating. In this instance the situation in the northern Samoyed languages is rightly considered to be more archaic (Däbritz 2017), and in the same way, the objective conjugation of the northern Samoyed languages is also more archaic than the one found in the southern Samoyed languages.

In Kamas, the objective conjugation forms of the first person singular merged with the subjective conjugation due the loss of final vowels, and the second person singular objective conjugation ending has become generalized to replace the corresponding subjective conjugation ending as well. As a result, only the third person has distinct objective conjugation suffixes (excepting the imperative, on which see farther below). Table 8.10 gives the Selkup and Kamas subjective and objective conjugation paradigms.

Table 8.10: Selkup and Kamas verbal endings of the subjective and objective conjugation (Selkup from Kazakevič 2022: 796; Kamas from Klumpp 2022: 829–830).

	Selkup		Kamas	
	sbc.	obc.	sbc.	obc.
1sg.	*-ŋ*	*-m*	*-m*	*-m*
2sg.	*-ntį*	*-l*	*-l*	*-l*
3sg.	*-∅*	*-tį*	*-∅*	*-t*
1du.	*-mɪː*	*-mɪː*	*-bəj*	*-bəj*
2du.	*-lɪː*	*-lɪː*	*-ləj*	*-ləj*
3du.	*-qɪ*	*-tɪː*	*-gəj*	*-dəj*
1pl.	*-mįt*	*-mįt*	*-baʔ*	*-baʔ*
2pl.	*-lįt*	*-lįt*	*-laʔ*	*-laʔ*
3pl.	*-tįt*	*-tįt*	*-jəʔ*	*-dən*

We can reconstruct a Proto-Samoyed objective conjugation paradigm based on Tundra Nenets and Nganasan, as presented in the Table 8.11 below. It is also possible to apply an additional step of internal reconstruction, already discussed above, namely the addition of plural **-n-* outside the first-person suffixes. This **-n-* is certainly needed in the first person, and the way in which it caused **-m-* to assimilate can even be reconstructed for Proto-Uralic (Janhunen 1982: 31). This same plural **-n-* will appear again outside the first-person forms in some of the objective conjugation paradigms of the other Uralic languages to be discussed further below, which provides comparative evidence for its reconstruction in non-first-person endings in pre-Proto-Samoyed. Table 8.11 contains Proto-Samoyed reconstructions for the objective conjugation, as well as reconstructions

showing the probable original structure of the endings. These should be taken as an illustration of the likely underlying structure of these endings, not as precise reconstructions at each stage.

Table 8.11: The development of the objective conjugation endings through time from (pre-)Proto-Uralic to Proto-Samoyed (cf. the Proto-Uralic paradigms given by Janhunen 1982: 32, 35; Aikio 2022: 16, 18; Zhivlov 2023: 156; the pre-Proto-Nenets paradigm given by Janhunen 1998: 471; and especially for the dual endings, Proto-Samoyed reconstruction by Urmanchieva 2023).

	PS sg.		pre-PS sg.	PS pl.		pre-PS pl.		PU pl.		pre-PU pl.
1sg.	*-mə*	<	*-mi*	*-j-nə*	=	[*-j*]*-nə*	<	*-ni*	<	*-n-mi*
2sg.	*-rə*	<	*-ti*	*-j-tə*	<	[*-j*]*-n-tə*	<	*-n-ti*	=	*-n-ti*
3sg.	*-tA*	<	*-sA*	*-j-tA*	<	[*-j*]*-n-sA*	<	*-n-sA*	=	*-n-sA*
1du.	*-məjn*	<	*-məjn*	*-j-nəjn*	=	[*-j*]*-nəjn*	<	*-nijn*	<	*-n-mijn*
2du.	*-rəjn*	<	*-təjn*	*-j-təjn*	<	[*-j*]*-n-təjn*	<	*-n-tijn*	=	*-n-tijn*
3du.	*-tAjn*	<	*-sAjn*	*-j-tAjn*	<	[*-j*]*-n-sAjn*	<	*-n-sAjn*	=	*-n-sAjn*
1pl.	*-mAt*	<	*-mAt*	*-j-nAt*	=	[*-j*]*-nAt*	<	*-nAk/t*	<	*-n-mAk/t*
2pl.	*-rAt*	<	*-tAt*	*-j-tAt*	<	[*-j*]*-n-tAt*	<	*-n-tAk/t*	=	*-n-tAk/t*
3pl.	*-ton*	<	*-son*?	*-j-ton*	<	[*-j*]*-n-*[*son*?]	<	*-n-sAk/t*	=	*-n-sAk/t*

Just as the possessive paradigm in Samoyed is probably more archaic than the paradigms found in many other Uralic languages (Däbritz 2017), the (parallel) structure of the objective conjugation has also been very stable in this branch. This is partly the result of the generally phonologically preservative nature of the Samoyed branch (cf., e.g., Janhunen 2009: 67). The only changes seem to be the intrusion of extra markers for the dual (**-k+jn*) and plural (**-j-*) into the paradigm, and the third person plural ending PS **-ton*. At least the recharacterization of the dual is understandable if we consider the fact that a sequence like dual **-k-* and 2sg. **-ti* would have yielded PS **-tə* by sound law, without any remaining overt sign of the probably more original dual marker **-k-* (cf. subsection 3.5.2). This would have applied to all second- and third person forms, and perhaps even the first-person forms would have deleted the **-k-* in the expected cluster **-km-* (parallels for this cluster are lacking, so it is uncertain how it would have developed). The introduction of the nominal plural suffix **-j-* removed the plural suffix **-n-* proper to the possessive declension and the objective conjugation from the second- and third person forms, so that it is only retained in the first person.[98]

[98] Georg and Seefloth (2019) provide a different internal reconstruction of Samoyed than the one in Table 8.11, with the **-n-* restricted to the first person only, and compare the resulting paradigm with that of Eskimo-Aleut. The presence of **-n-* in the other persons is, however, supported by the rest of the Uralic languages that preserve plural possessive marking, as discussed in the following

8.3.2.2 Mansi and Khanty

While the objective conjugation suffixes in Samoyed display some degree of fusion (mainly in the first- and second person forms), the paradigms in the Ob-Ugric languages Mansi and Khanty are almost entirely agglutinating. Since one fusional aspect, the first-person plural *-*n*- from *-*n-m*-, can be reconstructed for Proto-Uralic (e.g., Janhunen 1982), the strong agglutinating character of the objective conjugation in these languages is at least partially innovative, assuming that the objective conjugation is inherited.

Just as in (northern) Samoyed, the objective conjugation in Mansi and Khanty can agree with singular, dual and plural agents in person and number, and with singular, dual and plural objects in number only. The objective conjugation suffixes in both languages resemble the possessive suffixes, and they are generally considered to be of a common origin (Liimola 1973, Keresztes 1998: 411; possessive suffixes of Mansi are discussed in detail by Liimola 1963: 202–241).

The main differences between the possessive and objective suffixes in Mansi are found between singular possessum and singular object forms: the object forms are marked with an element *-l-*. This is also one of the more salient differences between the Mansi and Khanty objective conjugations. The origin of this suffix *-l-* is not agreed upon. Keresztes (1998: 403) marks it as "of uncertain origin", while Liimola (1973) proposed that the *-l-* is a deverbal nominalizing suffix originally, which was used to differentiate the first- and second person objective forms from those of the subjective conjugation. Rédei, meanwhile, derived the *-l-* from the momentative suffix PU *-*li* (Rédei 1989).

I am unsure which reconstruction is preferable, but the motivation for the introduction of the element *-l-* is clear. Without the *-l-* marking the singular, the objective conjugation endings of the first and second person would look identical to the subjective conjugation, which in turn looks actually the same as the possessive forms in Mansi. Liimola also describes a different strategy for differentiating subjective and objective conjugation forms, found in the Pelym dialect of Mansi. Aside from the forms with *-l-*, analogical addition of the final vowel from the 3sg.obc. *-te* to the other person forms is found as well: 1sg.obc. *-me* and 2sg.obc. *-ne* (Liimola 1973: 204).

Since the possessive forms are consistently different from the subjective conjugation in the other Uralic branches, at least in the singular and in third person forms, the identity of the first- and second person singular subjective and possessive endings in Mansi must be an innovation. Obviously, it resulted from the apocope of final vowels,

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subsections. The *-*j*- is reconstructed by Georg and Seefloth only for the third person forms originally, but the fact of the matter is that it is present in all persons in Samoyed, and that it would have regularly removed the *-*n*- by sound law except in the first person. As a consequence, I do not think that the pre-Proto-Samoyed reconstruction proposed by Georg and Seefloth accords with the available Uralic comparative evidence.

which rendered, e.g., PU 1sg. *-*m* and *-*mi* identical (Liimola 1973). The subjective suffixes are still different from the possessive ones in the third person, namely sbc.3sg. -∅, 3du. -*ɣ*, 3pl. -*t* as opposed to sg.poss.3sg. -(*t*)*e*, 3du. -*aɣe*, 3pl. -*ane*; and the latter are identical to the corresponding objective conjugation suffixes. Besides the singular object marker -*l*-, which, as discussed, is innovative in Mansi, the paradigm of the possessive declension and the objective conjugation only show minor differences.

Table 8.12: North Mansi possessive and verbal endings (Bakró-Nagy, Sipjocz & Skribnik 2022: 547).

	sg.poss.	sg.obc.	du.poss.	du.obc.	pl.poss.	pl.obc.	sbc.
1sg.	-*m*	-*ləm*	-*aɣəm*	-*aɣəm*	-*anəm*	-*anəm*	-*m*
2sg.	-*n*	-*lən*	-*aɣən*	-*aɣən*	-*anən*	-*an*(*ən*)	-*n*
3sg.	-(*t*)*e*	-*te*	-*aɣe*	-*aɣe*	-*ane*	-*ane*	-∅
1du.	-*men*	-*lamen*	-*aɣmen*	-*aɣmen*	-*anmen*	-*anmen*	-*men*
2du.	-*en*	-*lən*	-*aɣen*	-*aɣən*	-*anen*	-*an*(*ən*)	-*n*
3du.	-(*t*)*en*	-*en*	-*aɣen*	-*aɣen*	-*anen*	-*anen*	-*ɣ*
1pl.	-*w*	-*ləw*	-*aɣəw*	-*aɣəw*	-*anəw*	-*anəw*	-*w*
2pl.	-*en*	-*lən*	-*aɣen*	-*aɣən*	-*anen*	-*an*(*ən*)	-*n*
3pl.	-(*a*)*nəl*	-*anəl*	-*aɣanəl*	-*aɣanəl*	-(*a*)*nanəl*	-*anəl*	-*t*

The endings of the 3sg. and 3du. possessor, -(*t*)*e* and -(*t*)*en*, descend from PU *-*sA* and *-*sAjn*, with the Mansi change of PU *-*s* to *t*. The endings without the -*t*- are post-consonantal allomorphs (e.g., Keresztes 1998: 397). The -*t*- is also lacking after the dual and plural object suffixes -*ɣ*- and -*n*- in -*aɣe* and -*ane*. Since the -*t*- of the suffix disappeared after consonants, these third person endings can be reconstructed as an agglutinative series in pre-PMs., i.e., 3sg. *-*te*, *-*ɣ-te*, *-*n-te*, and 3du. *-*ten*, *-*ɣ-ten*, *-*n-ten*.

The ending of the first-person plural *-*w* in Mansi is shared with Khanty, and constitutes one of the potential shared innovations of Ob-Ugric in the phylogenetic sense (e.g., Honti 1976: 88). The ending of the second person dual and plural are merged, a syncretism that is shared with Khanty. Only in Mansi does this situation extend to the subjective conjugation as well, while the Khanty subjective conjugation has preserved the expected 2pl. suffix *-*təɣ* from PU *-*tAk*, as opposed to the 2du. *-*tən*, which is also as expected from PU *-*tijn*.

The origin of the Mansi 3pl. suffix -*anəl* is rather unclear (e.g., Keresztes 1998: 403). Liimola (1963: 230–231) connects the -*l* with the -*l* (or -*ɬ*) found in the plural possessed forms in Khanty, but does not explore the ultimate origin of this suffix further (see below on Khanty for a suggestion). In favour of a Khanty origin may be the appearance of this verbal suffix in those Mansi dialects that have undergone strong Khanty influence (Liimola 1973: 200-201). Plural possessive forms in simply -*an* are found in some varieties

of Konda Mansi, and could be more archaic, perhaps supporting the suggestion that the *-l-* was taken over from Khanty (Liimola 1963: 231). However, the precise origin of this *-an* does not seem to be entirely clear either. Liimola suggests that it is simply the possessive plural suffix *-*n* on its own (Liimola 1973: 231–232).

The origin of the *a*-vowel at the beginning of the dual and plural objective and possessive suffixes is also mysterious, but Honti connects it with the *a*-vowel found in most of the same suffixes in Khanty; only the placing of the vowel is different, since in Khanty it appears after the dual and plural co-affixes, while in Mansi it stands before them (Honti 1976: 112).

Table 8.13: A generalized abstracted structure of Mansi possessive and verbal endings; cf. Honti's (1998: 342) table of the Proto-Mansi person markers.

	sg.poss.	sg.obc.	du.poss.	du.obc.	pl.poss.	pl.obc.	sbc.
1sg.	*-m*	*-lə-m*	*-a-ɣ-əm*	*-a-ɣ-əm*	*-a-n-əm*	*-a-n-əm*	*-m*
2sg.	*-n*	*-lə-n*	*-a-ɣ-ən*	*-a-ɣ-ən*	*-a-n-ən*	*-a-n-ən*	*-n*
3sg.	*-te*	*-te*	*-a-ɣ-te*	*-a-ɣ-te*	*-a-n-te*	*-a-n-te*	*-∅*
1du.	*-men*	*-l-a-men*	*-a-ɣ-men*	*-a-ɣ-men*	*-a-n-men*	*-a-n-men*	*-men*
2du.	*-en*	*-lə-n*	*-a-ɣ-en*	*-a-ɣ-ən*	*-a-n-en*	*-a-n-ən*	*-n*
3du.	*-ten*	*-ten*	*-a-ɣ-ten*	*-a-ɣ-ten*	*-a-n-ten*	*-a-n-ten*	*-ɣ*
1pl.	*-w*	*-lə-w*	*-a-ɣ-əw*	*-a-ɣ-əw*	*-a-n-əw*	*-a-n-əw*	*-w*
2pl.	*-en*	*-lə-n*	*-a-ɣ-en*	*-a-ɣ-ən*	*-a-n-en*	*-a-n-ən*	*-n*
3pl.	*-anəl*	*-anəl*	*-a-ɣ-anəl*	*-a-ɣ-anəl*	*-a-nəl*	*-a-nəl*	*-t*

The Khanty possessive and objective endings are again very similar to one another, although some important differences can be found. In most of the first and second person forms, the possessive and objective suffixes are, like in Mansi, shared with the subjective conjugation, but the third person endings and the 2pl. of the subjective conjugation are clearly opposed to the corresponding suffixes in the possessive declension and objective conjugation. Table 8.14 and Table 8.15 below illustrate the endings of various Khanty varieties. An important feature of the Khanty possessive declension and objective conjugation is the *-ɬ-*/*-l-* in forms marking dual and plural possessions or objects.

Table 8.14: Possessive and verbal suffixes of Vasjugan Khanty (Filchenko 2007), Surgut Khanty (Csepregi 2023), Kazym Khanty (Sipos 2022) and Obdorsk Khanty (Nikolaeva 1999a). Person/number of the subject/possessor in the far-left column, declension /conjugation type at the top. Dual object/possessee endings below the row ">du."; they are combined with the dual suffix supplied in that row. Plural object/possessee endings are listed following ">pl." and combined with the plural suffix of that row instead of the dual suffix. The singular object/possessee endings are not marked with an additional suffix.

	Vasjugan		Surgut		Kazym		Obdorsk	
	poss.	obc.	poss.	obc.	poss.	obc.	poss.	obc.
1sg.	*-əm*	*-ɨm*	*-əm*	*-em*	*-em*	*-em*	*-em*	*-em*
2sg.	*-ən*	*-ɨn*	*-ən*	*-e*	*-en*	*-en*	*-en*	*-en*
3sg.	*-əl*	*-tə*	*-əɬ*	*-təɣ*	*-ɬ*	*-əɬ-ɬe*	*-l*	*-lli*
1du.	*-mɨn*	*-ɨmən*	*-imən*	*-temən*	*-emən*	*-mən*	*-emən*	*-emən*
2du.	*-tən*	*-ətən*	*-in*	*-ttən*	*-n*	*-ɬən*	*-lən*	*-lən*
3du.	*-tən*	*-ətən*	*-in*	*-ttən*	*-n*	*-ɬ-ɬən*	*-lən*	*-lən*
1pl.	*-uɣ*	*-uɣ*	*-əw*	*-təw*	*-eβ*	*-ɬeβ*	*-ew*	*-ew*
2pl.	*-tən*	*-ətən*	*-in*	*-ttən*	*-n*	*-ɬən*	*-lən*	*-lən*
3pl.	*-təl*	*-il*	*-iɬ*	*-iɬ*	*-ɬ*	*-eɬ*	*-el*	*-el*
>du.	*-ɣ(ə)l-*		*-ɣəɬ-*		*-ŋəɬ-*		*-ŋil-*	
1sg.	*-əm*	*-am*	*-am*	*-am*	*-am*	–	*-am*	*-am*
2sg.	*-ən*	*-an*	*-a*	*-a*	*-an*	–	*-an*	*-an*
3sg.	*-∅*	*-∅*	*-∅*	*-∅*	*-aɬ*	–	*-al*	*-li*
1du.	*-əmɨn*	*-amən*	*-amen*	*-amen*	*-əmən*	–	*-mən*	*-mən*
2du.	*-ɨn*	*-ɨn*	*-ən*	*-ən*	*-ən*	–	*-lən*	*-lən*
3du.	*-ɨn*	*-ɨn*	*-ən*	*-ən*	*-ən*	–	*-lən*	*-lən*
1pl.	*-uɣ*	*-əɣ*	*-əw*	*-əw*	*-əβ*	–	*-uw*	*-uw*
2pl.	*-ɨn*	*-ɨn*	*-ən*	*-ən*	*-ən*	–	*-lən*	*-lən*
3pl.	*-əl*	*-al*	*-aɬ*	*-aɬ*	*-aɬ*	–	*-al*	*-al*
>pl.	*-l-*		*-ɬ-*		*-ɬ-*		*-l-*	
1sg.	*-əm*	*-am*	*-am*	*-am*	*-am*	*-ɬam*	*-am*	*-am*
2sg.	*-ən*	*-an*	*-a*	*-a*	*-an*	*-ɬan*	*-an*	*-an*
3sg.	*-lə*	*-lə*	*-∅*	*-∅*	*-aɬ*	*-ɬe*	*-al*	*-li*
1du.	*-əmɨn*	*-amən*	*-amən*	*-amən*	*-əmən*	*-ɬəmən*	*-əmən*	*-əmən*
2du.	*-ɨn*	*-ɨn*	*-ən*	*-ən*	*-ən*	*-ɬən*	*-ələn*	*-əllən*
3du.	*-ɨn*	*-ɨn*	*-ən*	*-ən*	*-ən*	*-ɬən*	*-ələn*	*-əllən*
1pl.	*-uɣ*	*-oɣ*	*-əw*	*-əw*	*-əβ*	*-ɬəβ*	*-uw*	*-uw*
2pl.	*-ɨn*	*-ɨn*	*-ən*	*-ən*	*-ən*	*-ɬən*	*-ələn*	*-əllən*
3pl.	*-əl*	*-al*	*-aɬ*	*-aɬ*	*-aɬ*	*-ɬaɬ*	*-al*	*-al*

Table 8.15: Subjective conjugation endings of Khanty (Filchenko 2007; Csepregi 2023; Sipos 2022; Nikolaeva 1999a).

	Vasjugan	Surgut	Kazym	Obdorsk
1sg.	*-əm*	*-əm*	*-m*	*-m*
2sg.	*-ən*	*-ən*	*-n*	*-n*
3sg.	-∅	-∅	-∅	-∅
1du.	*-mən*	*-mən*	*-mən*	*-mən*
2du.	*-tən*	*-ttən*	*-tən*	*-tən*
3du.	*-ɣən*	*-ɣən*	*-ŋən*	*-ŋən*
1pl.	*-oɣ*	*-əw*	*-β*	*-w*
2pl.	*-ətəɣ*	*-təɣ*	*-ti*	*-ti*
3pl.	*-ət*	*-ət*	*-t*	*-t*

As in Mansi, the second person singular of Khanty has **-n* throughout, but the dual and plural subjective endings do show the **t* familiar from the other Uralic languages in 2du. *-tən* and 2pl. *-təɣ*/*-ti* (cf. Table 8.14). The 3sg. possessive suffix and the 3sg. objective conjugation endings are consistently differentiated in the majority of Khanty varieties, since an added object pronoun **-ɬəɣ* is suffixed in the objective conjugation (Honti 1976: 95; Raun 1988b: 564).

The dual co-affix in Khanty is **-ɣəɬ-*, as opposed to Mansi *-ɣ-*. This is different from the regular Khanty dual suffix as it is found in the unpossessed dual of nouns and in the subjective dual: KhVj.Sur. *-ɣən*, KhKaz.O *-ŋən* from PKh. **-ɣən*. Since there is no corresponding **-n-* or **-ɬ-* in the Mansi dual suffix *-ɣ-*, we should consider how the Khanty suffix arose. The **-n* in the Khanty dual suffix **-ɣən* was presumably taken over from the personal suffixes 1du. **-mən*, 2du. **-tən*, obc.3du. **-ɬən*, whence it spread to all dual forms; cf. also the Samoyed dual **-kəń*, which probably originated as the result of a similar, parallel development due to analogical pressures from PS 1du. **-məń* and 2du. **-təń*.

The plural in Khanty has the co-affix **-ɬ-*, instead of the **-n-* found in Mansi. It is also distinct from the unpossessed plural in Khanty, which has the plural suffix **-t* (as in Mansi, from PU **-t*). Honti relates the dual/plural co-affixal element **-ɬ-* to the toponym suffix *-lA* of Finnic, which developed into a plural suffix in Karelian (Honti 1998: 341).

However, since we expect both the dual and plural co-affixes to end in **-n*, we may consider whether this could have been regularly lost or removed. I think that a probable scenario is as follows: the original 3sg. dual and plural forms in pre-Proto-Khanty were **-ɣənsA* and *-nsA* respectively, corresponding to pre-Proto-Mansi **-ɣsa* and **-nsA* with spread of the **n* to the dual in Khanty as seen in the dual ending **-ɣən*. The cluster **-ns-* in these suffixes may well have been simplified to just **-s-*, eventually yielding the **-ɬ-*

found in the Khanty dual and plural co-affixes *-*ɣəɬ*- and *-*ɬ*-.[99] From an original (and expected) locus in the third person forms, these elements may then have spread throughout the paradigm by analogy.

Possibly in support of this hypothesis is the fact that the third person singular forms of the dual and plural objective conjugation do not have additional suffixes in a number of Khanty varieties: e.g., KhVVj. obc.du.3sg. -*ɣəl*-∅, KhTrj. -*ɣəɬ*-∅, and KhV obc.pl.3sg. -*l*{-∅/*əl*} (facultative zero-ending), KhTrj. -*ɬ*-∅. Alternative explanations are also available, however, such as analogical removal of the ending *-*əɬ* to differentiate it from the third person plural endings in *-*äɬ*, or, as per Honti (1976: 94-95), due to haplology. If, however, as I propose, the reflexes of *-*sA* and *-*nsA* merged as PKh. *-*ɬ*, the lack of an additional element is as expected.

This may also fit with the full vowel -*ä*- found after the dual and plural co-affixes in Khanty in most persons. This vowel is connected by Honti to the co-affix itself rather than to the personal ending, with which it only got associated due to metanalysis (Honti 1976: 112–113). The second-person forms in the dual and plural could potentially derive from assimilated *-*ɬ-tən*, as there is no trace of the expected suffix-initial consonant. Based on the rest of the paradigm, we might have expected obc.du.2du **-*ɣəɬätən* and obc.pl.2du. **-*ɬätən*. If such forms once existed, they might have undergone syncope of the vowel between two voiceless elements and simplification of the resulting cluster; i.e., **-(*ɣə*)*ɬätən* > **-(*ɣə*)*ɬtən* > *-(*ɣə*)*ɬən* (cf. MdE 3.obc.2pl. -*nk* < -*ntak* with a similarly conditioned truncation).

The singular possessive third person dual endings in -*ən* are extracted from the plural possessive third person in -*ɬən* by analogical removal of the plural co-affix -*ɬ*- (Honti 1976: 96). Expected is PKh. *-*ɬən* from PU *-*sAjn*, and this is actually reflected in the corresponding objective conjugation endings in some varieties like KhO -*lən*. The plural objective conjugation third person plural -*ɬ-aɬ* (historically *-*ɬa-ɬ*) looks like extended *-*nsa*(*n*)*sa* in Proto-Uralic terms.

[99] Honti reconstructs the co-affix as Proto-Khanty *-*l*- rather than *-*ϑ*- (=*-*ɬ*-), but the co-affix consistently has the same reflex as the third person possessive suffix in *-*ϑ*-, so that a reconstruction as *-*ɬ*- seems possible.

Table 8.16: Proto-Khanty possessive and verbal endings, after Honti (1998: 343).

	sg.poss.	sg.obc.	du.poss/obc.	pl.poss/obc.	sbc.
1sg.	*-(i)m*	*-im*	*-ɣə-ɬä-m*	*-ɬä-m*	*-m*
2sg.	*-(i)n*	*-in*	*-ɣə-ɬä-n*	*-ɬä-n*	*-n*
3sg.	*-ɬ*	*-ɬ*	*-ɣə-ɬ*	*-ɬ*	*-∅*
1du.	*-(i)mən*	*-imən*	*-ɣə-ɬä-mən*	*-ɬä-mən*	*-mən*
2du.	*-n*	*-tən*	*-ɣə-ɬ-ən*	*-ɬ-ən*	*-tən*
3du.	*-n*	*-ɬən*	*-ɣə-ɬən*	*-ɬən*	*-ɣən*
1pl.	*-(i)w*	*-iw*	*-ɣə-ɬä-w*	*-ɬä-w*	*-w*
2pl.	*-n*	*-tən*	*-ɣə-ɬ-ən*	*-ɬ-ən*	*-təɣ*
3pl.	*-(i)ɬ*	*-iɬ*	*-ɣə-ɬä-ɬ*	*-ɬä-ɬ*	*-t*

Honti (1998: 342) gives a further reconstruction for Proto-Ob-Ugric, but for our purposes all relevant points have now been treated. It is clear that Mansi and Khanty both have objective conjugations with endings that are shared to a large extent with their respective possessive declensions. Mansi shows the plural morpheme **-n-* throughout the paradigm, also present in the first-person forms in Samoyed. In Khanty the earlier presence of this **-n-* may have been obscured by both sound law and analogical processes.

8.3.2.3 Hungarian

The Hungarian objective conjugation is also known as the definite conjugation, as it agrees with definite nouns in Modern Hungarian. In Old Hungarian, it did not always agree with non-topical definite objects, however (É. Kiss 2013). Unlike most other Uralic languages with an objective conjugation discussed so far, the objective conjugation in Hungarian only marks the presence of the (definite) object, not its number. The function as marking definite objects rather than topical objects in modern Hungarian is probably a corollary of the fact that Hungarian has innovated definiteness as a category in the form of definite articles, combined with the semantic closeness of topicality and definiteness (É. Kiss 2013). Just as with Selkup and Kamas, I think that it is possible to take the absence of dedicated objective forms for plural objects as an innovation in Hungarian

The origins of many of the Hungarian verbal endings are rather difficult and obscure, however. The 1sg. present tense subjective ending *-k*, as well as the 1sg. present tense suffixes *-sz* and *-l* and the precise shape of the 1pl. endings *-(j)uk* and *-unk* have long been a matter of debate. The Hungarian data is not very useful from a comparative point of view for the purposes of a formal reconstruction, due to the uncertainty about many of the developments, so I will here only give a brief overview.

Table 8.17: Endings of the Hungarian subjective (indefinite) conjugation, objective (definite) conjugation, and possessive declension; only back vocalic allomorphs are shown (after Kenesei & Szécsényi 2022: 643–644).

	sbc.	obc.	sg.poss.	pl.poss.
1sg.	*-k*/*-m*	*-m*	*-m*	*-im*
>2sg.	—	*-lak*	—	—
2sg.	*-sz*/*-l*	*-d*	*-d*	*-id*
3sg.	*-∅*	*-(j)a*/*-i*	*-(j)a*/*-i*[(a)]	*-(j)ai*/*-i*[(a)]
1pl.	*-unk*	*-(j)uk*	*-unk*	*-ink*
2pl.	*-tok*	*-(j)átok*	*-(j)atok*	*-(j)aitok*
3pl.	*-nak*	*-(j)ák*	*-(j)uk*	*-ik*

(a) The suffix *-i* is found in possessed form in both singular and plural function in Old Hungarian (Papp 1968: 137–138).

From our point of view, the most interesting ending in the Hungarian objective conjugation is 2sg. *-d*. This suffix cannot directly continue PU **-ti*, since that would have become assibilated to ***-z*. Rather, it must derive from a cluster with a nasal, **-Nt*. Within the objective conjugation itself, this would of course only be expected in the plural objective forms, with the plural suffix **-n-*, of which otherwise no trace remains in Hungarian. The 2sg. *-d* is shared with the possessive declension, however, where it can be derived either from the plural (Kulonen 1993: 71–72) or from the old genitive or accusative (cf. Holopainen 2023). The possibility that the possessive declension had some effect on the Hungarian definite conjugation is not excluded, although there do not seem to be other clear traces of cross-pollination between the two sets of endings.

In this context it is noteworthy, however, that the Hungarian possessive declension does not mark plural possession with the Uralic suffix **-n-* at all, but rather with *-i-*. This element has been connected with the plural suffix PU **-j-* found in Saami, Finnic and Samoyed (e.g., Korhonen 1981: 209; Abondolo 1998: 21; Aikio 2022a: 15), but its origin is disputed. One problem with this connection is that the plural suffix **-j-* is otherwise completely absent from Hungarian, as well as from its most probable closest relatives Mansi and Khanty. It is therefore unclear when and from where this suffix should have been recruited for the possessive declension, before being lost in all other functions. Taking this into consideration, perhaps an internal source for the Hungarian marker *-i-* should be preferred (so argues Kulonen 1993: 56–57).

As an alternative, it has been suggested that it reflects a differentiation of an earlier polysemic and polymorphic 3sg. possessive suffix. This might be supported by Old Hungarian evidence, where at least the variant suffix *-i* can refer to both singular and plural possessions (Kulonen 1993: 57; Papp 1968: 137–138). The logical next question would then be how such polysemy arose in the first place; if the entire plural possessive

declension collapsed in Hungarian, there simply might not have been a way to mark the number of the possession at some point in time, so that it should later be reinvented completely. However, we might consider whether the expected plural *-*nsA* would have preserved the *-*n*- at all. The cluster *-*ns*- is otherwise unknown, so that the fate of such a suffix in Hungarian is unclear. Perhaps *-*nsA* and *-*sA* initially merged, as seems to have happened in Khanty -*ɬ*- (see 8.3.2.2), leading to the polysemy of the suffix observed in Old Hungarian, and allowing for a similar spread throughout the possessive paradigm as I suggested for Khanty.

Many of the other endings in Hungarian are obscure. The first person ending -*k* of the subjective conjugation has been variously identified as cognate with the plural suffix -*k*, the deverbal noun forming suffix -*k*, and as an instantaneous suffix; Abaffy (2001: 322) summarizes the previous literature. Havas instead suggests that it is connected with the medial suffix -*ik* (Havas 2004: 123ff.). It has also been identified with the Proto-Uralic present tense suffix -*k*- seen in Mansi, and with the first-person singular ending -*g* of the Permic negative verb (Zhivlov 2023: 157). Zhivlov argues that this connection would make sense given the fact that Hungarian 1sg. -*k* is not used outside of the present, with -*m* fulfilling the same function in the past tense. Both second-person singular endings -*sz* and -*l* have long been considered to have their origin in frequentative suffixes (Abaffy 2001: 322 with references). Abaffy herself considers -*l* to be the reflex of a medial suffix instead (ibid.: 326–327).

Rédei has attempted to explain the first-person plural suffixes -*unk* and -(*j*)*uk* as derived from the Proto-Uralic participle suffix *-*pA*, which became early Hungarian *-*w*-. for example, an indefinite verb form like *várunk* 'we wait' would, according to Rédei be formed like **várə-wə-mək*, with -*wə*- being the participle suffix and -*mək*- the actual 1pl. ending. The -*u*- found in these suffixes would thus be a reflex of their participial origin. Abaffy argues against such a derivation, on the basis of Old Hungarian data more often showing a mid-vowel -*ok*/-*ëk*/-*ok* and -*onk*, and forms like *vagmuc* for modern *vagyunk* 'we are' showing syncope of the stem-final vowel. The participle suffix *-*w*- normally yields a long vowel *ú* or *ű*, which should have been immune to syncope, and could also not have been shortened regularly (Abaffy 2001: 329). Honti connects the rounded vowel in the Hungarian first-person plural suffixes with the first person plural ending *-*w* of Mansi and Khanty; this would account for the absence of a nasal in the definite suffix *-(*j*)*uk*. Havas would rather get rid of the nasal due to intervocalic lenition of *-*m*- in a sequence of the type *várə-jə-mək* to *várə-jə-wək*, eventually *várjuk*, where syncope would have operated differently from the indefinite type *várə-mək* to *várunk* (Havas 2004: 132–133).

A more detailed discussion of the various considerations and arguments goes beyond the purpose of our present investigation into the Uralic objective conjugation as a whole, and therefore I will leave the matter with the scholars referred to and those of the future.

In general, it is clear that the Hungarian endings of the objective conjugation do not provide us with much of the comparative material that we need for our formal reconstruction. Only the 2sg. suffix *-d* potentially contains trace of a theoretically more informative earlier situation, but its value is diminished significantly due to uncertainty regarding its exact formation.

8.3.2.4 Mordvin

Mordvin is the only branch belonging to the western group of Uralic that has an objective conjugation; and it has the most elaborate system of object marking of all Uralic languages, with suffixes for first and second person objects as well as those for third person objects. The paradigms in the two Mordvin languages Erzya (E) and Moksha (M) contain the same number of functional endings, but they are different in their form to some extent. The entire paradigm appears to be heavily restructured when compared to the other Uralic languages, to the point that it has been considered to be a separate innovation almost in its entirety; so Kereszstes (1999), who does not reconstruct a complete Proto-Mordvin paradigm and ascribes the difference in the conjugations of the Erzya and Moksha to independent, parallel developments based on an original defective partial paradigm. I would rather follow Bergsland's analysis (1973), which focuses on the similarities between the Mordvin and Samoyed objective conjugations, as well as the ways in which the Mordvin endings may have been on the one hand extended and on the other hand recharacterized. Bergsland provides pre-Proto-Mordvin reconstructions of some individual endings, but no coherent reconstruction of Proto-Mordvin itself. Bergsland's arguments are furthermore presented in a rather compact way that is at points difficult to follow. I hope here to provide a clear picture of Proto-Mordvin and integration with the endings of the other Uralic languages.

Past tense

It is especially in the past tense that the Mordvin endings resemble those in the Samoyed languages (Bergsland 1973: 51), and also to an extent those of Mansi. I will therefore first discuss the past tense paradigm. One thing to look out for is once again the presence of an element *-n-* in certain plural forms, in addition to the more notorious suffix **-sA* of the third person singular.

To understand the morphological nature of the past tense endings, it is important to know that the main past tense morpheme is *-i-* in Erzya, and *-j-* or *-∅-* in Moksha (PU **-j-*); sometimes in Moksha this past morpheme is only reflected in the palatalization of the first consonant of the ending. In the third person singular and third person plural of the subjective conjugation, the past tense suffix *-ś-* is used instead. For ease of comparison, I also give the possessive paradigms again, although it should be borne in mind that they are marked with an additional suffixed demonstrative element in Moksha

(cf. below). The choice of a vowel *e* or *o* in Erzya depends on vowel harmony. In combination with the past tense morpheme *-i-* only front harmonic allomorphs exist, with palatalization of alveolar consonants where possible.

Table 8.18: Erzya (E) and Moksha (M) Mordvin endings of the possessive declension (with the oblique forms added in parentheses if different from the nominative), the past tense objective conjugation and the past tense subjective conjugation. Past tense morphemes are separated from the person endings with a hyphen wherever the two are not wholly fused. The subject/possessor person/number is given on the left, the declension/conjugation type and object/possessee person/number at the top. This information can be found in, e.g., Raun (1988a: 102–103, 106–107); Keresztes (1999: 18–19, 67–68); Hamari & Ajanki (2022: 403, 408–412).

		sg.poss.	pst.3sg.obc.	pl.poss.	pst.3pl.obc.	pst.sbc.
1sg.	E	*-m* (*-n*)	*-i-ja*	*-n*	*-i-ń*	*-i-ń*
	M	*-źä* (*-n*)	*-j-ńä*	*-ńä*	*-j-ńä*	*-ń*
2sg.	E	*-t*	*-i-k*	*-t*	*-i-tʹ*	*-i-tʹ*
	M	*-ćä* (*-t*)	*-j-tʹ*	*-tʹńä*	*-j-tʹ*	*-tʹ*
3sg.	E	*-ze*/*o* (*-nze*/*o*)	*-i-ź́e*	*-nze*/*o*	*-i-ńź́e*	*-ś*
	M	*-c* (*-nza*)	*-źä*	*-nza*	*-źəń*	*-ś*
1pl.	E	*-ne*/*ok*	*-i-ńek*	*-ne*/*ok*	*-i-ńek*	*-i-ńek*
	M	*-ńkä* (*-nk*)	*-ś-k*	*-ńkä*	*-ś-k*	*-mä*
2pl.	E	*-nk*	*-i-nk*	*-nk*	*-i-nk*	*-i-ďe*
	M	*-ńťä* (*-nt*)	*-ś-tʹ*	*-ńťä*	*-ś-tʹ*	*-ďä*
3pl.	E	*-st*	*-i-ź́*	*-s-t*	*-i-ź́*	*-ś-tʹ*
	M	*-sna* (*-st*)	*-ź́*	*-sna*	*-ź́*	*-ś-tʹ*

The possessive suffixes in Erzya continue the Proto-Uralic suffixes rather straightforwardly, with the caveat that the plural possessive forms were generalized also to the singular when the possessor was plural; e.g., for sg.poss.1pl. *-ne*/*ok* one would expect ***-me*/*ok* instead, from PU **mAk*, but it was levelled with the pl.poss.1pl. *-ne*/*ok* < PU **-nAk*.

The Moksha possessive suffixes are remade with the addition of demonstrative pronouns (e.g., 2sg. *-t* + *śä* → *-ćä*; see Bereczki 1988: 325–326). Because of this, the nominative possessive suffixes of Erzya and Moksha are remarkably dissimilar to one another. However, in the oblique the possessive suffixes of Erzya and Moksha are more alike: 1sg. EM *-n*, 2sg. EM *-t*, 3sg. E *-nze*/*o* ~ M *-nza*, 1pl. E *-ne*/*ok* ~ M *-nk*, 2pl. E *-nk* ~ M *-nt*, 3pl. EM *-st* (Raun 1988a: 103). These suffixes are identical to the plural possessive suffixes due to the oblique (genitive) morpheme being the same as the possessive plural morpheme, namely PU **-n-*. The Proto-Mordvin possessive paradigm was thus basically

the same as the one found in Erzya, while the Moksha nominative forms are innovative with the addition of demonstrative pronouns.

From among the singular endings of the past objective conjugation, only the 3sg. E *-i-źe* ~ M *-źä* immediately seems to be truly archaic (Keresztes 1999: 107). This regularly continues the ending **-sA* as seen in the other branches that have an objective conjugation, namely Hu. *-(j)a*, Ms. *-te*, Kh. *-ł*, PS **-tA*. The forms for the plural subjects are again analogically levelled to be the same as those with plural objects (this is the general pattern in Mordvin, cf. above on the possessive endings).

The third person plural object endings of the past objective conjugation may also constitute a particularly archaic part of the paradigm, however: 3pl.obc.1sg. E *-i-ń* ~ M *-j-ńä*, 3pl.obc.2sg E *-i-ť* ~ M *-j-ť*, 3pl.obc.3sg. E *-i-ńźe*, 3pl.obc.1pl. E *-i-nek* and 3pl.obc.2pl. E *-i-nk* can all be regularly derived from past **-j-* + PU **-ni*, **-nti*, **-nsA*, **-nAk* and **-ntAk* respectively (Bergsland 1973: 50–51 on the first- and second-person forms). These suffixes contain the same plural suffix **-n-* as also seen most clearly in Mansi, and in the first person in Samoyed, although it is only preserved in the third person singular, the first-person plural and the second person plural. The use of this particular plural suffix indicates a strong connection with the possessive paradigm. While Keresztes (1999: 114) interprets this as a secondary transfer of the possessive endings to the objective paradigm where no endings existed yet, in my opinion, the fact that same structure is clearly paralleled outside of Mordvin in the other Uralic branches rather suggests that these plural objective endings are particularly old.

The plural objective forms in the preterite are partially syncretic with the subjective preterite paradigm, which causes problems for a straightforward reconstruction. This is particularly the case in the Erzya 1sg. *-iń*, 2sg. *-iť* and 1pl. *-ińek*. According to Keresztes (1999: 114), this means that the past plural objective paradigm simply did not exist originally, and that therefore the preterite subjective forms were extended to be used as objective endings as well. However, in that case it is unclear why only a few specific endings were taken over from the subjective paradigm in this way. The syncretism may rather be the result of a merger by sound law, since, if we assume a plural objective paradigm as indicated by Samoyed and Mansi for pre-Proto-Mordvin as well, the Erzya endings (except the clearly innovative third person plural) are all as expected: 1sg. **j-ni* would become Erzya *-iń* with loss of the final vowel, and 2sg. **-j-nti* would regularly lose the **n* in the word-final cluster **-jńť* to become Erzya *-iť*. At the same time, the subjective first-person singular is also expected to become *-i-ń* from PU **-j-m* with the change of final **-m* to *-n* and palatalization caused by **-j-*, and, likewise, the subjective second-person singular *-i-ť* from PU **j-t* would be regular as well (cf. Bergsland 1973: 49–50 and further below).

Table 8.19: Expected and attested subjective conjugation singular and plural objective conjugation singular subject endings.

S ↓	pst.sbc. (quasi-)PU	expected PMd.	Erzya	Moksha
1sg.	**-j-m*	> **-j-ń*	= *-iń*	= *-ń*
2sg.	**-j-t*	> **-j-t'*	= *-it'*	= *-t'*
3sg.	**-ć*	> **-ś*	= *-ś*	= *-ś*
S ↓	pst.3pl.obc. (quasi-)PU	expected PMd.	Erzya	
1sg.	**-j-ni*	> **-j-ń*	= *-iń*	~ *-jńä*
2sg.	**-j-nti*	> **-j-t'*	= *-iť*	~ *-jt'*
3sg.	**-j-nsA*	> **-j-ńźA*	= *-ińźe*	>> *-źəń*

Moreover, the subjective 1pl. **-ińek* in Erzya is innovative, and taken over from the objective conjugation. The corresponding subjective ending in Moksha, *-mä*, is isolated and more archaic, reflecting expected PU **-j-mAk* with apocope of final **-k*. The original Proto-Mordvin first-person plural endings would thus have been different in at least the preterite subjective **-mAk* (as reflected in Moksha) and the preterite objective plural **-nAk* (as reflected in Erzya). This is not taken into account by Keresztes (1999: 112–115), who interprets the differences between Erzya and Moksha as the result of later creations of new, independent forms.

The Erzya sbc.2pl. *-i-d'e* is also clearly different from the plural objective suffix *-i-nk*, and together with Moksha *-d'ä* it represents an archaic suffix descending from, in PU terms, **-j-tAk* (cf. the Erzya present sbc.2pl. *-tado* from PMd. **-ta-dAk*). The opposition between the subjective conjugation and objective conjugation endings here is as expected, and thus likely inherited.

The subjective third person preterite endings sg. *-ś* and pl. *-śt'* are both distinct from the corresponding objective endings as well, but the 3pl. *-ź* was secondarily taken from a perfect participle or gerund in *-ź* (Keresztes 1999: 95)[100], in line with the general tendencies of Uralic languages to innovate third-person verbal endings. The element *-ź-* is included in a number of other plural endings (also in the first- and second-person object forms discussed below), among them the innovative Moksha 1pl. *-śk* and 2pl. *-śt'* with regressive voice assimilation (Keresztes 1999: ibid.).[101] The archaic forms M *-jńək* (=

[100] The current function of *-ź* outside of the objective conjugation paradigm is to form gerunds expressing simultaneity, but it is considered to have been a perfect participle originally (Zaicz 1998: 205).

[101] The nature of the *-k* in 1pl. *-śk* and the *-t'* in 2pl. *-śt'* are not addressed by Keresztes (1999: 95). The exact mechanism for the formation is not immediately obvious, but *-k* and *-t* are found in the

E *-ńek*) and M *-jəńť* (= E *-ink*) are preserved in southern and northern/north-eastern dialects (Keresztes 1999: 114, 118, 222, 228). The presence of the originally participial suffix *-ź-* in the objective conjugation is certainly secondary, and it thus obscures the ending would have existed for the third person plural at an earlier stage in pre-Proto-Mordvin: the expected objective ending of the third person plural acting upon the third person singular or plural is probably ***-śť*, parallel to the corresponding possessive ending E *-st* with the additional palatalizing effect of the past tense morpheme, i.e., **-j-st*. This is obviously the same as the third person plural subjective ending, which may have been cause for a secondary replacement.

Table 8.20: Expected and attested subjective conjugation plural and plural objective conjugation plural subject endings.

S ↓	pst.sbc. (quasi-)PU	expected PMd.	Erzya	Moksha
1pl.	**-j-mAk*	> **-j-mA*(*k*)	>> *-ińek*	= *-mä*
2pl.	**-j-tAk*	> **-j-ďA*(*k*)	= *-iďe*	= *-ďä*
3pl.	**-ś-t*	> **-ś-ť*	= *-śť*	= *-śť*
S ↓	pst.3pl.obc. (quasi-)PU	expected PMd.	Erzya	Moksha
1pl.	**-j-nAk*	> **-j-ńAk*	= *-ińek*	archaic = *-jńək* ; >> *śk*
2pl.	**-j-ntAk*	> **-j-ń*(*t*)*k*	= *-ińk*	archaic = *-jəńť* ;>> *śť*
3pl.	**-j-nsAt*/*k*	> **-j-st*	>> *-ź*	>> *-ź*

The origin of the pst.3sg.obc.1sg. *-i-ja* is quite obscure. According to Keresztes (1999: 112), it is analogical to the present *-sa*. Bergsland's account appears to be contradictory: he derives E *-ija* from a particle *-jak* (*-gak*, *-kak*) added to a "dialectal" preterite in *-i* (Bergsland 1973: 48), but the Moksha ending *-jä* (dialectally restricted to the south, see Keresztes 1999: 207) is taken by Bergsland directly from PU **-j-mi*. Bergsland posits an opposition between Moksha sbc.1sg. *kunda-ń* 'I catch' vs. 3sg.obc.1sg. *kundajä* 'I catch it' vs. 3sg.obc.1sg. *kundajńä* 'I catch them' as the original situation, and a reflection of the Proto-Uralic distinction in the suffixes as **-j-m* vs. **-j-mi* vs. **-j-ni* (Bergsland 1973: 49). The opposition between the suffixes *-jä* an *-jńä* does appear to be present in any single dialect, however (see Keresztes 1999: 207, 209). The final **-ńä* of the Moksha first person objective preterite endings can also reflect, in part, the plural pronominal stem *ńe*, as seen in the possessive paradigm (cf. M pl.poss.1sg. *-ńä*, there from **-n-ńe*). The expected

possessive suffixes (oblique) 1pl. *-nk*, 2pl. *-nt*. Expected for these past tense objective endings would be ***-ńk* (or perhaps ***-ńť*) and ***-ńť*.

outcome of the past third person objective conjugation first person ending would probably have been **-*i*-*m* (cf. sg.poss.1sg. E -*m*), which thus seems to have been replaced.[102]

The -*k* in the second person singular was introduced from the imperative 2sg. -*k* (Bereczki 1988: 329), and the pst.3sg.obc.2sg. E -*i*-*k* is identical with the objective imperative. In fact, all imperative forms are more or less syncretic with the corresponding preterite endings, with the sole exception of the imp.1sg.2sg. -*mak* (cf. the table below). According to Bergsland, this -*mak* derives from a spread of the imperative suffix *-*k* in phrases with a negative imperative like **iľa moń kundak* 'don't catch me' → **iľamak kundak*, which by analogy yielded forms like *kundamak* instead of expected **kundak moń* (Bergsland 1973: 48). Perhaps a sequence **kundak moń* through univerbation could also give **kundamań* (with simplification of the cluster *-*km*-), whence analogical addition of the regular imperative suffix would have yielded *kundamak* as well. Whichever sequence of changes facilitated the creation of the suffix -*mak*, an addition of personal object pronouns to verb forms and subsequent analogical processes needs to be assumed for the first- and second-person objective suffix, on which see farther below.

Table 8.21: The imperative endings of Erzya (E) and Moksha (M) Mordvin (e.g., Keresztes 1999: 68; Hamari & Ajanki 2022: 411). Subject person/number on the left, conjugation type and object number/person at the top.

S ↓		sbc.	1sg.obc.	3sg.obc.	1pl.obc.	3pl.obc.
2sg.	E	*-k*/*t*/*ť*	*-mak*	*-ik*	*-miź*	*-iť*
	M	*-k*/*t*/*ť*	*-mak*	*-k*	*-maśť*	*-jť*/*iť*
2pl.	E	*-do*/*ďe*	*-miź*	*-ink*	*-miź*	*-ink*
	M	*-da*	*-maśť*	*-śť*	*-maśť*	*-śť*

[102] One could come up with a sequence of changes from *-*jmə* to E -*ja* if *-*jmə* first yielded *-*jm*, and if this cluster underwent epenthesis to *-*jəm*. It would probably have been the only instance of such a cluster in word-final position in the language, so that it is difficult to corroborate this hypothetical change. With analogical removal of the final nasal, as also posited by Keresztes (1999: 112) for the corresponding present ending *-*sa*, this *-*jəm* would yield E -*ja*. A parallel for analogical removal of the final nasal in a first-person ending may be found in M prs.2sg.obc.1sg. -*ťä* without a final nasal next to E -*tan* with a final nasal. The vowel -*a*- in Erzya if often of epenthetic origin, such as in the second person plural ending -*tadok*, morphologically from -*t* + *dok* (Ravila *apud* Bergsland 1973: 44–45; Bereczki 1988: 326). While such a derivation of -*ja* might be possible in principle, it remains much too speculative.

In Erzya the difference between objective imperative and preterite forms is only maintained in the first-person object forms, as they lack the suffix *-*i*-. In Moksha, the preterite suffix is absent in the corresponding forms in the preterite as well, having merged with the final consonant. The Moksha imp.3sg.obc.2sg. is simply -*k* as opposed to prt.3sg.obc.2sg. -*jť*. Unlike the subjective conjugation imperative, however, this -*k* does not partake in alternations based on the shape of the stem, so that an intervening vowel as seen in Erzya must be reconstructed for Moksha as well.

Present tense

Now that we have seen the past tense suffixes, we can move on with an overview of the present. The endings are given in Table 8.22 below. The endings of the optative are added here as well, since they are very similar to the present tense endings. Optative forms of the objective conjugation are only really found in older material and as such they are not written in the same phonological transcription as the past and present endings. The spelling is fairly easy to convert, however, as for instance 3sg. -*zynze* is to be analysed as -*zińźe*, analogous to the corresponding present -*sińźe*.

Table 8.22: Erzya (E) and Moksha (M) Mordvin endings of present and optative objective conjugation and the present subjective conjugation. Subject person/number and object person on the left, tense/mood, conjugation type and object number at the top.

S ↓		prs.sg.obc.	opt.sg.obc.	prs.pl.obc.	opt.pl.obc.	prs.sbc.
1sg>3.	E	-*sa*	-*za*	-*s-i-ń*	-*zyn*	-*an*
	M	-*sa*	-*zainä*	-*sa-j-ńä*	-*zainä*	-*an*
2sg>3.	E	-*sa-k*	-*zak*	-*s-i-ť*	-*zt*	-*at*
	M	-*sa-k*	-*zait*	-*sa-j-ť*	-*zait*	-*at*
3sg>3.	E	-*s-i*	-*zazo*	-*s-i-ńźe*	-*zynze*	-*i*
	M	-*s-i*	-(*za*)*zä*	-*si-ńä*	-*zasɨn*	-*aj*/-*j*
1pl>3.	E	-*s-i-ńek*	-*zynek*	-*s-i-ńek*	-*zynek*	-*tano*/-*ťano*
	M	-*sa-ś-k*	-*zaśk*	-*sa-ś-k*	-*zaśk*	-*tama*/-*ťama*
2pl>3.	E	-*s-i-nk*	-*zynk*	-*s-i-nk*	-*zynk*	-*tado*/-*ťado*
	M	-*sa-ś-ť*	-*zaśt*	-*sa-ś-ť*	-*zaśt*	-*tada*/-*ťada*
3pl>3.	E	-*s-i-ź*	-*zyze*	-*s-i-ź*	-*zyze*	-*iť*
	M	-*sa-ź*	-*zaz*	-*sa-ź*	-*zaz*	-*ajť*/-*jť*

The present objective paradigm is certainly completely remade, or newly made, based on an element *-*sa*-. It therefore has very little bearing on the original connection of the Mordvin objective conjugation with the other Uralic languages. According to Keresztes, the element *-*sa*- originates from the optative paradigm, and consists of a combination of the optative suffix -*za* and the 3sg. objective suffix -*ze/o*. Geminates are always

voiceless in Mordvin, so the result of a sequence *-*zVzV*- would be *-*ssV*- after syncope, whence regularly Mordvin -*sV*- (Keresztes 1999: 110–111).

The suffixal element -*sa*- would thus essentially include the same suffix twice, in Proto-Uralic terms *-*sA*-*sA*. On its own, *-*sA* came to be used as a general optative suffix (PMd. *-*zA* > E -*zo/e*, M -*za*; Bereczki 1988: 328), apparently only retaining its association with the objective conjugation in the past tense. From there the new present tense objective conjugation in *-*sA*-*sA* was derived from the optative with the addition of the ending from the preterite (Bergsland 1973: 48). The discrepancy in the vowels between -*sa*- and -*zo* is explained by Bergsland as the result of analogy with the vowel in the endings of the subjective present 1sg. -*an* and 2sg. -*at*. The preterite objective suffix would thus have been in existence and functional when the present objective endings were first formed (ibid.).[103]

The objective conjugation of the optative itself disappeared in both Erzya and Moksha, and only Erzya still has a complete subjective optative paradigm, while 1pl. and 2pl. suffixes are missing in modern Moksha (Keresztes 1999: 96; Hamari & Ajanki 2022: 412). The optative suffix is EM -*za*-, both in the objective and subjective forms. Paradigms of the definite optative were recorded before they disappeared (Keresztes 1999: 96, with further references). The general pattern is that the optative endings are the same as the present, but with a -*z*- instead of an -*s*-. The only exceptions to this are the third person singular object suffixes in both Erzya and Moksha, and in Moksha the first- and second-person singular.

First- and second-person forms

Now turning briefly to the first- and second-person objective forms, we can see that only those suffixes referring to singular objects are truly distinctive from one another. Most forms involving a plural (either as the agent or the object) are syncretic in some way or another, merging reference to distinctive plural subject persons in one form. In Table 8.23, endings that are equal to the ones to the left are replaced with an "=" sign to reduce clutter. Without parallels in the other Uralic languages that have an objective conjugation, these forms are clearly innovations specific to Mordvin and do not represent the Proto-Uralic state of affairs. Moreover, the personal object forms look like they are made by agglutination of various recognisably Mordvin personal pronouns, and much analogical modification (see Bergsland 1973).

[103] It is suspicious that the objective conjugation contains beside -*sa*- the elements -*ma*- and -*ta*- for the first and second person respectively, from secondary univerbations with pronominal *moń* and *toń*; in parallel, pronominal *soń* would probably have yielded -*sa*- as well if incorporated into the present objective conjugation. This would have created essentially a two-tier system with old objective endings in the past and new objective endings in the present, influencing each other over time to create the present-day Mordvin objective conjugation paradigm.

Table 8.23: Erzya (E) and Moksha (M) Mordvin objective conjugation endings with reference to first- and second-person objects. Subject person/number and object person on the left, tense and object number at the top.

S ↓		pst.sg.obc.	pst.pl.obc.	prs.sg.obc.	prs.pl.obc.
1sg>2.	E	*-i-ť-iń*	*-i-ď-iź*	*-ta-n*	*-ta-diź*
	M	*-j-ť-äń*	*-ď-äź*	*-ťä(-ń)*	*-ťä-ďäź*
2sg>1.	E	*-i-m-ik*	*-i-m-iź*	*-sa-m-ak*	*-sa-m-iź*
	M	*-m-ajť*	*-m-aś-ť*	*-sa-m-ak*	*-sa-m-aś-ť*
3sg>1.	E	*-i-m-im*	*-i-m-iź*	*-sa-m-am*	*-sa-m-iź*
	M	*-m-ań*	*-m-aź*	*-sa-m-ań*	*-sa-m-aź*
3sg>2.	E	*-i-ńź-iť*	*-i-ď-iź*	*-ta-nza-t*	*-ta-d-iź*
	M	*-ńźä*	*-ď-äź*	*-ta-nza*	*-ťä-ď-äź*
1pl>2.	E	*-i-ď-iź*	=	*-ta-d-iź*	=
	M	*-ď-äź*	=	*-ťä-ď-äź*	=
2pl>1.	E	*-i-m-iź*	=	*-sa-m-iź*	=
	M	*-m-aś-ť*	=	*-sa-m-aź*	=
3pl>1.	E	*-imiź*	=	*-sa-m-iź*	=
	M	*-maź*	=	*-sa-m-aś*[*ť*]	=
3pl>2.	E	*-iďiź*	=	*-ta-d-iź*	=
	M	*-ďäź*	=	*-ťä-ď-äź*	=

The origin of the past plural ending 2.obc.pl. E *-iďiź* ~ M *-ďäź* is relatively easily understandable: to the pst.sbc.2pl. ending PMd. **-ďa* the suffix **-ź* of the pst.obc.3pl. was added (Bergsland 1973: 46). In Erzya this was depalatalized to *-tadiź*. The same type of development can be assumed for the corresponding pst.obc.1pl. in Erzya *-imiź* (i.e., **-j-mə+j+ź*), while the Moksha form *-maśť* is extended with **-t*. The present suffixes were then formed with the addition of the present suffixes **-sa-* for the first-person object forms (as in the rest of the present objective conjugation paradigm) and **-ta-* for the second-person object forms.

The ending of the pst.2sg.obc.1sg. E *-iťiń* ~ M *-jťäń* looks similar to the second person genitive pronoun EM *toń*, which is also the expected form the accusative; according to Bergsland, it can be directly derived from this (Bergsland 1973: 47). In principle the suffix could have been extracted from constructions such as **eźiń toń ńeje* 'I did not see you', which became **eźi*(*ń*)*ťań ńeje*, and **ńejiń toń*, which became **ńeji*(*ń*)*ťań* 'I saw you', both with reductions resulting from the suffixation process (namely, **-nť-* to *-ť-* and **o* to *a*). The present suffix counterpart E *-tan* could be based on the opposition in palatalization on the other first-person suffixes between past *-ń* and present *-n* (Bergsland 1973: 47). Segmentation of this form as *-ta-n* then allowed for the analysis of *-ta-* as a marker of the

present + second person, and in that function, it is inserted into E *-tadʹiź* ~ M *-tʹädʹäź* (cf. above). The Moksha form *-ťä(ń)* seems to be based only on the removal of the preterite morpheme *-j-*, but without depalatalization. The final *-ń* was further removed everywhere except in some northern and central dialects (see Keresztes 1999: 234).

At least the Moksha past objective conjugation ending referring to a first-person singular object *-mań* looks like it could be of a similar origin, i.e., **eś moń ńeje* 'he did not see me' > **eźəmań ńeje*, and parallelly *ńejemań* 'he saw me'. Bergsland rather derives this suffix by a replacement of the final *-k* in the first-person objective second person singular subject ending *-mak* with *-ń* from the possessive paradigm (Bergsland 1973: 47); the same development would yield the final *-m* in the corresponding Erzya suffix pst. *-imim*, prs *-samam* (ibid.). Bereczki (1988: 329) takes this element as a doubling from original **-imi*, **-sama*, and derives the Moksha final **-ń* from the subjective conjugation. However, since I would rather assume suffixation of the oblique pronoun *moń*, as seemingly reflected in the Moksha form, the final *-m* in E *-imim*, *-samam* is, in my opinion, the result of an assimilation from more expected E ***-imiń*, ***-samań* to the preceding *-m-*.

The 2sg.obc.3sg. endings containing **-nzA* are difficult to account for: this is the expected 3pl.obc.3sg. suffix, and in that function this sequence is found in the Erzya past objective conjugation ending 3pl.obc.3sg. *-ińźe*. How it came to refer to a second-person singular object, in Moksha generally and in Erzya only with added *-tʹ/t*, is not entirely clear (Keresztes 1999: 118). In the present tense, the *-ta-* from the 2sg.obc.1sg. endings **-tan* and **-tań* is generalized throughout all second-person object forms. Bergsland therefore considers the present in M *-tanza* to be more original than **-tanzat*, with past *-nza* the result of analogical removing of the *-ta-* element marking the present (or its replacement with the past tense suffix *-j-*). The basis for *-tanza* itself could be the 2sg.obc.1sg. in **-tan* with the addition of the 3sg.obc.3sg. suffix *-za* (Bergsland 1973: 46). E *-tanzat* is formed with an additional *-t* marking the second person; this is also found in the corresponding past ending E *-ińźitʹ* and in some Moksha varieties in an ending *-ńźäť* (Keresztes 1999: 41).

Proto-Mordvin reconstruction

Based on a comparison of the Erzya and Moksha forms and consideration for possible or probable origins of the various elements contained in the suffixes, I think that a full Proto-Mordvin paradigm can be reconstructed. Bergsland (1973) gives several very useful structural pre-Proto-Mordvin reconstructions, but no overview. Keresztes does not provide such a reconstruction either, since he believes that "paradigm construction was started on the grounds of a few fundamental pillars, which was, in turn, slowly and gradually extended" (Keresztes 1999: 120).

I think that the Mordvin conjugations are so similar that they can be derived from a full Proto-Mordvin paradigm. This is presented in Table 8.24. I use **A* to indicate the harmonizing vowel E *e*/*o* on etymological grounds (= PU **A*). The vowel that turns up as *a* in both Mordvin languages is represented here as the lower case **a*. It occurs in epenthesis and weakening environments (e.g., in agglutinated object pronouns), so it may go back to a reduced vowel like **ə* or **ɐ*.

Table 8.24: Proto-Mordvin verb endings and their reflexes. Secondary, analogical changes are marked in square brackets. Subject person/number and object person on the left, tense and conjugation type, including object number, at the top.

S ↓	pst.sbc.	pst.sg.obc.	pst.pl.obc.	prs.sbc.	prs.sg.obc.	prs.pl.obc.
1sg>3.	**-jń*	**-j(a?)*	**-jń*	**-an*	**-sa(n)*	**-sajń*
E	*-iń*	*-i[ja]*	*-iń*	*-an*	*-sa(n)*	*-siń*
M	*-ń*	*-j[ńä]*	*-j[ńä]*	*-an*	*-sa[]*	*-saj[ńä]*
1sg>2.	—	**-jťajń*	**-jďAjź*	—	**-tan/ń*	**-tadAjź*
E		*-iťiń*	*-iďiź*		*-tan*	*-tadiź*
M		*-jťäń*	*-ďäź*		*-ťä(ń)*	*-ťäďäź*
2sg>3.	**-jť*	**-jk*	**-jť*	**-at*	**-sak*	**-sajt*
E		*-ik*	*-iť*	*-at*	*-sak*	*-siť*
M		*-jť*	*-jť*	*-at*	*-sak*	*-sajť*
2sg>1.	—	**-jmajk*	**-jmajź*	—	**-samak*	**-samajź*
E		*-imik*	*-imiź*		*-samak*	*-samiź*
M		*-majť*	*-maś[ť]*		*-samak*	*-samaś[ť]*
3sg>3.	**-ś*	**-jźA*	**-jńźA*	**-(a)j*	**-saj*	**-sajńźA*
E	*-ś*	*-iźe*	*-ińźe*	*-i*	*-si*	*-sińźe*
M	*-ś*	*-źä*	*-[]ź[ń]*	*-(a)j*	*-si*	*-si[ńə]*
3sg>1.	—	**-jma(j)ń*	**-jmajź*	—	**-samań*	**-samajź*
E		*-imi[m]*	*-imiź*		*-sama[m]*	*-samiź*
M		*-mań*	*-maź*		*-samań*	*-samaź*
3sg>2.	—	**-jńźA*	**-jďajź*	—	**-tanzA*	**-tadajź*
E		*-ińź[iť]*	*-iďiź*		*-tanza[t]*	*-tadiź*
M		*-ńźä*	*-ďäź*		*-tanza*	*-ťäďäź*
1pl>3.	**-jmA(k)*	**-jńAk*	**-jńAk*	**-TamAk*	**-sajńAk*	**-sajńAk*
E	*-i[ń]ek*	*-ińek*	*-ińek*	*-Ta[n]o*	*-sińek*	*-sińek*
M	*-mä*	*-[ś]k* [(a)]	*-[ś]k* [(a)]	*-Tama*	*-sa[ś]k*	*-sa[ś]k*
1pl>2	—	**-jďajź*	**-jďajź*	—	**-tadajź*	**-tadajź*
E		*-iďiź*	*-iďiź*		*-tadiź*	*-tadiź*
M		*-ďäź*	*-ďäź*		*-ťäďäź*	*-ťäďäź*

S ↓	pst.sbc.	pst.sg.obc.	pst.pl.obc.	prs.sbc.	prs.sg.obc.	prs.pl.obc.
2pl>3.	*-*jďA*(*k*)	*-*jnk*	*-*jnk*	*-*TadAk*	*-*sajnk*	*-*sajnk*
E	*-*iďe*	*-*ink*	*-*ink*	*-*Tado*	*-*sink*	*-*sink*
M	*-*ďä*	-[*ś*]*t*′ (a)	-[*ś*]*t*′ (a)	*-*Tada*	*-*sa*[*ś*]*t*′	*-*sa*[*ś*]*t*′
2pl>1	—	*-*jmajź*	*-*jmajź*	—	*-*samajź*	*-*samajź*
E		*-*imiź*	*-*imiź*		*-*samiź*	*-*samiź*
M		*-*maś*[*t*′]	*-*maś*[*t*′]		*-*samaź*	*-*samaź*
3pl>3.	*-*śt*′	*-*jź*	*-*jź*	*-*(a)jt*	*-*sajź*	*-*sajź*
E	*-*śt*′	*-*iź*	*-*iź*	*-*it*′	*-*siź*	*-*siź*
M	*-*śt*′	*-*ź*	*-*ź*	*-*(a)jt*′	*-*saź*	*-*saź*
3pl>1.	—	*-*jmajź*	*-*jmajź*	—	*-*samajź*	*-*samajź*
E		*-*imiź*	*-*imiź*		*-*samiź*	*-*samiź*
M		*-*maź*	*-*maź*		*-*samaś*[*t*′]	*-*samaś*[*t*′]
3pl>2.	—	*-*jďajź*	*-*jďajź*	—	*-*tadajź*	*-*tadajź*
E		*-*iďiź*	*-*iďiź*		*-*tadiź*	*-*tadiź*
M		*-*ďäź*	*-*ďäź*		*-*ťäďäź*	*-*ťäďäź*

(a) Dialectal forms of these endings in Moksha are more similar to the Erzya endings: M 1pl. dial. *-jńək* ~ E *-ńek*, M 2pl. dial. *-jəńť* ~ E *-ink*. This is interpreted by Keresztes as a preservation of the more archaic situation (Keresztes 1999: 114).

Seeing as both Erzya and Moksha show syncretism of the plural subject/object forms, this can be reconstructed for Proto-Mordvin as well. In Moksha, the endings were remade to M 1pl. *-śk*, 2pl. *-śť*, so that the Erzya endings in *-ne*/*ok* and *-nk* (with syncope from PU *-*ntAk*) are to be regarded as more original. These are matched by dialectal M *-jńək* and *-jəńť* respectively. In the subjective conjugation, we must reconstruct pst.sbc.1pl. *-*j-mA*(*k*) on the basis of M 1pl. *-mä*; E *-ińek* is analogically taken over from the plural object ending (Bereczki 1988: 327). Similarly, subjective PMd. 2pl. *-*j-dA*(*k*) forms can be reconstructed based on M 2pl. *-ďä*, E 2pl. *-ďe*. Here we have the expected counterparts to, e.g., PSaa. 1pl. *-*mēk*, 2pl. *-tēk* and Samoyed 1pl. *-*mAt*, 2pl. *-*rAt*~*-*tAt* from PU 1pl. *-*mAk*, 2pl. *-*tAk* (Zhivlov 2023: 156–157). The loss of final *-*k* in certain endings does not seem to be entirely regular, but it is observed in other places as well, cf. dialectal variation in Erzya prs.1pl *-tano* ~ *-tamo* ~ *-tamk* and prs.2pl. *-tado* ~ *tadk* (Bereczki 1988: 326).

The Erzya pst.3sg.obc.1sg. *-ja* might be innovative from archaic *-j* (as per Keresztes 1999: 28), but its exact origins are not clear (cf. the conflicting accounts of Keresztes 1999: 112; Bergsland 1973: 48–49). If the ending was *-*ja* in Proto-Mordvin already, we have to assume levelling in Moksha. A suffix M *-jä* like the one found in Erzya does exist in some Moksha varieties (see Keresztes 1999: 28).

In the second-person singular and plural object endings (**-jk* and **-jt*) regularly merged in Moksha as *-jť* by sound law, so that the Erzya differentiation between singular object *-ik* and plural object *-iť* can be reconstructed. Those Moksha varieties that differentiate the two in the same way as Erzya does are characterized by Keresztes as mixed dialects (Keresztes 1999: 176, 178).

In the 1sg.obc.3sg., I would reconstruct pst. **-jma(j)ń* and prs. **-samań* with a final *-ń* as in Moksha instead of *-m* as in Erzya, because the original shape **-mań* allows for a connection with the expected genitive-accusative personal pronoun. The final *-m* in Erzya pst.1sg.obc.3sg. *-imim*, prs.1sg.obc.3g. *-samam* may be explained as the result of assimilation. Bereczki (1988: 329) would reconstruct endingless forms instead, while neither Bergsland (1973: 47) nor Keresztes (1999: 114ff.) reconstruct anything beyond the attested variation.

The *-j-* in the present plural object endings **-sajn* and **-sajt* may have been taken over from the preterite as part of the personal endings, but alternatively, it might reflect an extension of the subjective present ending **-j* — this is especially likely in the third person singular, by which the other forms were likely influenced. Whichever is the case, the element was already present in Proto-Mordvin, as it is abundantly reflected in both Erzya and Moksha.

The pst.2sg.obc.3sg. ending can be reconstructed as identical to that of the pst.pl.obc.3sg., namely as **-j-nzA*. Erzya *-ińźiť* looks like a re-characterization of this with an added plural (or second person) element **-T*. In Moksha, the ending is as would be expected for the pst.3pl.obc.3sg. form, which is instead made up from the ending M *-źä* from the singular object ending and the plural demonstrative pronoun **ńə* to yield M *-źəń*. The expected function of **-j-nzA* as an ending of the plural objective conjugation third person singular is found in Erzya, but since it is part of the second person object ending in Erzya *-ińźiť* and found as the second person object ending in Moksha *-ńźä*, which shows a clearly re-made pst.3pl.obc.3sg. ending *-źəń*, the ending PMd. **-j-nzA* can be reconstructed as polysemic for Proto-Mordvin. Both the extension in the Erzya suffix prs.2sg.obc.3sg *-ińźiť* and the replacement in Moksha with new prs.3pl.obc.3sg. *-źəń* are then clearly motivated.

According to Keresztes (1999: 108), the objective forms with third person plural subject in E *-iź* ~ M *-ź* show a differentiation, with secondary **-j-* only in Erzya to form pre-E **-jź*, but seeing as **-jń* develops to M *-ń* with loss of **-j-*, I see no reason not to reconstruct **-jź* as the ancestor of both the Erzya and the Moksha endings. **-j-* in Moksha was preserved in pst.3sg./pl.obc.2sg. *-jť*, merged from PMd. **-jk* and **-jt*, but elsewhere Erzya *-i-* from **-j-* is not reflected by a distinct segment in Moksha, so that we can assume that it was regularly lost before voiced consonants. This means that the Proto-Mordvin paradigm can be reconstructed as more uniform than suggested by Keresztes (1999: 107–121 *passim*).

Connection with Proto-Uralic

As discussed above, the past tense objective conjugation appears to contain the most archaic endings. Many of the suffixes there are as expected in either Erzya or Moksha, or in both, so that also the syncretism with part of the subjective paradigm can be the result of regular sound change. This is illustrated in the table below. The plural objective forms of the first and second person were generalized in favour of the plural object forms, so the expected singular object forms are lost.

Table 8.25: Proto-Uralic verbal suffixes and their expected Proto-Mordvin reflexes. Which suffixes are reflected in Erzya (E) and/or Moksha (M) is marked with the '=' sign. Cf. Table 8.19 and Table 8.20.

S ↓	PU sbc.	expected in PMd.	PU sg.obc.	expected in PMd.	PU pl.obc.	expected in PMd.
1sg.	*-*m*	*-*n* (= EM)	*-*mi*	*-*m* (≠)	*-*ni*	*-*n* (= E, M?)
2sg.	*-*t*	*-*t* (= EM)	*-*ti*	*-*t* (≠)	*-*nti*	*-*t* (= E, M?)
3sg.	*-∅	*-∅ [pst. -*ś*]	*-*sA*	*-*zA* (= EM)	*-*nsA*	*-*nzA* (= E)
1pl.	*-*mAk*	*-*mAk* (= M)	*-*mAk*	*-*mAk* (≠)	*-*nAk*	*-*nAk* (= E, arch. M)
2pl.	*-*tAk*	*-*dAk* (= EM)	*-*tAk*	*-*dAk* (≠)	*-*ntAk*	*-*nk* (= E, arch. M)
3pl.	*-*t*	*-*t* [pst. -*ś*-*t*]	*-*sAk*	*-*st* [→ -*ź*]	*-*nsAk*	*-*st* [→ -*ź*]

The third person singular objective conjugation plural subject endings are all identical with the corresponding third person plural objective conjugation plural subject endings, but they correspond to the latter category as expected when compared to the plural subject endings of the Samoyed and Mansi objective conjugations. The endings that are syncretic between the subjective and objective conjugations thus largely occur where expected by regular sound law. Only the first- and second person singular show a distinct lack of direct reflexes: the nature of pst.3sg.obc.1sg. E *-ija* is unclear. The corresponding M *-jńä* probably contains an additional pronominal element **ńe*. The **-k* of the pst.3sg.obc.2sg. in **-jk*, E *-ik* ~ M *-jt'* was taken from the second-person singular imperative.

Some of the finer details of the developments of the Mordvin objective conjugation may still need to be worked out further, but I hope that this subsection provides the necessary impetus for work in this direction after Keresztes's (1999) study. The Erzya and Moksha endings have too much in common for the system to not be a Proto-Mordvin creation. In my opinion, Bergsland's (1973) analysis of the pre-Proto-Mordvin structure of these suffixes provides a more promising avenue for further research into the relation of the Mordvin objective conjugation to the objective conjugation in the eastern Uralic languages. Following Bergsland's approach, I have argued that Mordvin can be added to the same list as Samoyed and Mansi for showing the plural suffix *-n-* to mark the plural number of the object in both the possessive declension and the objective conjugation,

indicating that the connection between the suffixes of these respective paradigms is very old.

8.3.2.5 Saami, Finnic, Mari and Permic

The remaining Uralic languages, Saami, Finnic, Mari and Permic, do not have a separate objective paradigm. Table 8.26 shows the possessive and "subjective" verbal endings of Proto-Saami, Finnic and Mari.

Table 8.26: Possessive and verbal endings of Proto-Saami (possessive endings from Sammallahti 1998: 69; verbal endings from Koponen 2022: 109; 3du. *-kān* as per Aikio 2022a: 18–19), Finnish (Laakso 2022a: 245–247; 2022b: 260; third person endings imported from finitized participles marked in square brackets) and (East) Mari (after Saarinen 2022: 448).

	Proto-Saami			Finnish		Mari (E)	
	poss.	pl.poss.	vb.	poss.	vb.	poss.	vb.
1sg.	*-*mę*	*-*nę*	*-*m*	-*ni* (sg. *-*mi*)	-*n*	-*m*	-*m*
2sg.	*-*tę*	*-*ntę*	*-*k*	-*si* (pl. *-*nsi*)	-*t*	-*t*	-*t*
3sg.	*-*sē*	*-*ssę*	*-∅	-*nsA*ʔ~-*Vn*	-*V* (*-*vi*)	-*žo*/*ö*	-∅/*š*
1du.	*-*męn*	*-*nęn*	*-*męn*	—	—	—	—
2du.	*-*tęn*	*-*ntęn*	*-*tęn*	—	—	—	—
3du.	*-*sēn*	*-*ssēn*	*-*nęn*, *-*kān*	—	—	—	—
1pl.	*-*mēk*	*-*nēk*	*-*mēk*	-*mme*(ʔ)	-*mme*(ʔ)	-*na*	-*na*
2pl.	*-*tēk*	*-*ntēk*	*-*tēk*	-*nne*(ʔ)	-*tte*(ʔ)	-*da*	-*da*
3pl.	*-*sēk*	*-*ssēk*	*-*k*, prt. *-*n*	-*nsA*ʔ~-*Vn*	-*vAt*	-*št*	-*t*

Saami clearly shows the presence of the suffix *-*n*- in the plural possessive paradigm (*-*ss*- derives from *-*ns*-). This element is also reflected in a number of the Finnish forms, namely in the 1sg. -*ni* (rather than *-*mi*, which is only reflected as a relict in dialects and old texts; Laakso 2022a: 245), in the 3sg/pl. -*nsAʔ* and in the 2pl. -*nneʔ* (from *-*ntek*; rather than **-*deʔ* from *-*tek*; Kulonen 1993: 72). The Mari 1pl. -*na* in the possessive paradigm also derives from the plural *-*nAk* rather than singular *-*mAk* (Bergsland 1973: 49; Saarinen 2022: 443). Whether the presence of the same person ending in the 1pl. of the verb could constitute a direct reflex of an earlier objective conjugation in pre-Proto-Mari is more difficult to tell, since an alternation between a generalized plural possessive ending *-*na* and the more expected (subjective) verbal ending *-*ma* may also have been levelled at some point, given the general identity of most other possessive and verbal endings in this language (Bereczki 1988: 342).

Bergsland (1973: 52) suggests that one aspect of Saami verbal inflection might reflect an earlier presence of the objective endings, namely the 1sg. and 2sg. forms of the *ē*-stems; cf., e.g., the North Saami 1sg. *guottán* and 2sg. *guottát* of *guoddit* 'carry, bear' (PSaa. stem

**kuontē-*). The forms *guottán* and *guottát* contain the vowel *-á-*, which is usually only found instead of **ē* (SaaN *i*) before a PSaa. **-ę-* in the following syllable. This can be illustrated with the possessive form of, e.g., *goddi* 'deer': 1sg. *goddán* 'my deer' and 2sg. *goddát* from PSaa. **kontāmę* and **kontātę*. These forms are opposed to the accusative singular *gotti* from PSaa. **kontēm* (SaaN *-tt-* is the weak grade of *-dd-* from PSaa. **-nt-*). If the verb forms of the type *guottán* and *guottát* were derived from PSaa. **kuontē+m* and **kuontē+k*, with the normal subjective endings, they should have become SaaN ***guotti* and ***guottit* respectively.

On the other hand, hypothetical earlier objective suffixes would have yielded PSaa. **kuontā-mę* and **kuontā-tę*, whence SaaN ***guoddán*, **guoddát*. These latter forms have the correct second-syllable vowel, but the wrong consonant grade. If any reflex of an objective conjugation ending is preserved in these forms, as tentatively suggested by Bergsland, it can be only by way of early analogical influence having changed, e.g., pre-PSaa. sbc.1sg. **kuontē-m* to (phonologically irregular) **kuontā-m* on the basis of pre-PSaa. *sg.obc.1sg. **kuontā-mę* (phonologically regular). The latter form would subsequently have been lost. The unexpected vowel in these forms is explained by Korhonen (1967: 190–192) as an adoption from the third person, e.g., SaaN *guoddá* from **kuontā*, whence it spread as a present marker in the singular (Korhonen 1967: 230–233). The final vowel of certain some other Saami verb endings is also difficult to explain, such as the vowel of 3du. **-pān* in the great majority of varieties, rather than expected ***-pēn* (Korhonen 1967: 284–287), so that this suggested connection with an earlier objective conjugation may not be the correct approach.

Several other potential connections have been made in the literature between endings and these branches and the objective conjugation, which I will here summarize. I leave a detailed (re-)evaluation of the nature of these endings to future research. The past plural ending **-n* of Saami has been connected with the objective conjugation and possessive declension on account of the plural co-affix **-n-* in those paradigms, but the precise connection is difficult to understand (Korhonen 1967: 338–339, 349 with references); dialectal Mansi 3pl. *-an* might be similar, but is also poorly understood.

In the Saami third person imperatives there is an element *-s-* that has been connected with the possessive and objective conjugation endings PSaa. 3sg. **-sē*, 3du. **-sēn*, 3pl. **-sēk* (Korhonen 1967: 234, 292–293; 340–342), as would be regular from PU **-sA*, **-sAjn*, **-sAk*. A similar suffix is found in the Finnic third person imperative 3sg. **-hen* from **-sen* and 3pl. **-het* from **-set* (Viitso 1998: 111–112), cf., e.g., Fi. imp.3sg. *menköön* < **men-kö-hen*, 3pl. *menkööt* < **men-kö-het* of *mennä* 'go'. The Mari third person desiderative and imperative suffixes 3sg. *-že/o*, 3pl. *-št* correspond to this as well (cf. Bereczki 1988: 347, who compares in the first place Mordvin optatives MdE 3sg. *kundazo* 'he should take', 3pl. *kundast* 'they should take').

The final branch to be briefly discussed is Permic; the possessive and verbal endings of Komi and Udmurt are given in Table 8.27 below. In both Komi and Udmurt, the system of singular possessum vs. plural possessum (with the plural suffix *-n* as in many other branches) was simplified, but it is reconstructed for Proto-Permic to explain the *-n-* in the plural possessor endings of Komi. Modern Komi and Udmurt both use the plural suffix Komi *-jas*, Udm. *-jos* to indicate the plurality of the possession, which Csúcs (2005: 200) reconstructs as part of an unstable system that was levelled in different ways in the two branches (cf. also somewhat differently, Rédei 1988: 385).

Table 8.27: Proto-Permic, Komi Zyrian and Udmurt possessive and verbal endings (Csúcs 2005: 199, cf. also Rédei 1988: 384).

	Proto-Permic			Komi Zyrian		Udmurt	
	sg.poss.	pl.poss.	vb.	sg.poss.	vb.	sg.poss.	vb.
1sg.	**-e*	**-ne*	**-∅*	*-ę(j)*	*-a*	*-e/-į*	*-∅*
2sg.	**-įt*	**-nį-t*	**-n*	*-įd*	*-an*	*-ed/-įd*	*-d*
3sg.	**-įs*	**-nį-s*	**-∅/-s*	*-įs*	*-ę/-s*	*-ez/-įz*	*-∅/-z*
1pl.	**-mį*	**-nį-mį*	**-mį*	*-nįm*	*-am*	*-mį*	*-mį*
2pl.	**-tį*	**-nį-tį*	**-tį*	*-nįd*	*-a(nnį)d*[a]	*-dį*	*-dį*
3pl.	**-sį*	**-nį-sį*	**-∅/-sį*	*-nįs*	*-nį/-snį*	*-zį*	*-o/-zį*

(a) The variant ending 2pl. *-annįd* is made from the more original ending 2pl. *-ad* in combination with the poss.2pl. *-nįd*; older Komi sources also attest to unassimilated *-adnįd* (Rédei 1988: 390).

The lack of fusion with the first person *-m-* in the Komi possessive ending 1pl. *-nįm* suggests some restructuring, similar to what we see in Mansi (cf. Ms. 1sg. *-anəm*). Due to various reductions in clusters (cf., e.g., Zhivlov 2023: 134) and apocope of final vowels, the expected paradigm for plural possessum in (pre-)Proto-Permic would probably be **-n*, **-t*, **-s*, **-nį*, **-tį*, **-sį*. This would have been almost entirely undifferentiated from the singular possessum forms **-m*, **-t*, **-s*, **-mį*, **-tį*, **-sį*. The irregularity of having **n* in the first-person forms may initially, and understandably, have been mended by simply adding the corresponding singular possessum endings (thus 1pl. **-nį+mį* = **-nįmį*).

From that point, reanalysis of **-nį-* as a plural possessum morpheme would have been quite straightforward, allowing it to spread to the second- and third-person forms as well. Word-final **-m* was lost in Proto-Permic (e.g., Csúcs 2005: 199, 205), and apparently this loss applied to both original Proto-Uralic word-final **-m* (in the ending of the subjective conjugation and the accusative, PU **-m*) and to secondary word-final **-m* after apocope (as in the possessive suffix from PU **-mi*). The **-m(i)* of the first person is only preserved in combination with some case endings, such as the illative and accusative (Rédei 1988:

384–385). According to Rédei, Udmurt also preserves verbal 1sg. *-m* in questions, principally before the question particle *-a* (Rédei 1988: 389).

The Permic third person singular verbal ending **-s* (KoZ *-s*, Udm. *-z*) is furthermore interesting, as this could be a remnant of the objective conjugation PU **-sA* (Csúcs 2005: 260–261 with further references). In the past tense in Komi, the use of third person *-s* is apparently more prevalent with transitive verbs than with intransitive verbs, which fits with its interpretation as a relic from an earlier objective conjugation (ibid.). A similar difference between the Komi and Udmurt verbal endings is found in the third person plural as well, where Komi has *-nį* in the present and *-snį* in the past and future, and Udmurt has *-o* in the present and *-zį* in the past and future. The latter would of course be the regular reflex of the possessive ending PU 3pl. **-sAk*, which may also have functioned as the corresponding objective conjugation ending.

The Komi endings look like an extension of the possessive plural suffix *-nį-* on the one hand to a form with a zero ending (perhaps expected from PU sbc.3pl. **-t*, possibly regularly lost in word-final position in Permic, as the Proto-Uralic plural **-t* has left no trace), and on the other hand to a form ending in **-s*, as expected for the counterpart of Udmurt **-zį*. The Komi forms could also have been based directly on the singular forms, but the fact that Udmurt shows a similar distribution of two 3pl. endings indicates that there were two endings in Proto-Permic already.

The Permic languages thus preserve a few endings that look like the objective conjugation suffixes in exactly those places where they would not have been lost by sound law. In the first person singular, regular sound change would have deleted both the subjective and the objective ending. This is illustrated in the following table. The vowels marking the first singular and third person forms are innovative in their function as verbal endings, as they arose after the loss of word-final consonants; they are here left out of consideration for clarity.

Table 8.28: A reconstruction of Proto-Permic with separate, though largely syncretic, subjective and objective endings. The elements in square brackets were added or altered secondarily in this scenario.

	Proto-Permic		Komi		Udmurt	
	sbc.	obc.	prs.	fut./pst.	prs.	fut./pst.
1sg.	*-∅	*-∅	-∅	-∅	-∅	-∅
2sg.	*-*n*	*-*t*	-*n*	-[*n*]	-[*d*]	-*d*
3sg.	*-∅	*-*s*	-∅	-*s*	-∅	-*z*
1pl.	*-*mį*	*-*mį*	-*m*	-*m*	-*mį*	-*mį*
2pl.	*-*tį*	*-*tį*	-*d*[*nįd*]	-*d*[*nįd*]	-*dį*	-*dį*
3pl.	*-∅	*-*sį*	-[*nį*]	-*s*[*nį*]	-∅	-*zį*

Association of the objective conjugation endings with the future and the past tenses also makes sense in the light of similar phenomena in Mordvin: especially the past tense most faithfully preserves the objective conjugation, while the expected present tense 3sg. ending has developed into a (non-objective) suffix for the optative and the present tense endings were completely remade. Optative or imperative function also seems to be the only potential reflex of *-*sA* in Saami, Finnic and Mari.

8.3.2.6 Proto-Uralic

As we have seen above, views on a Proto-Uralic reconstruction of the objective conjugation have often been quite pessimistic. Körtvély and Kövesi, for example, write:

> "In those Uralic languages that have a determinative [=objective] conjugation, the morphological structure of the verb forms is approximately similar, but not to the extent that the verb endings could be traced back unequivocally to the same source." (Körtvély 2005: 42)

> "In den Sprachen mit zwei Konjugationen sind die Abweichungen – sowohl in der Struktur der objektiven Konjugation als auch im Ursprung und in der Fügung der einzelnen »Bauelemente» – so gross, dass man im Zusammenhang mit ihnen nicht an eine genetische Verbinding denken kann, sie können höchstens als gewisse auf der Gleichheit der Anschauungsweise beruhende parallele sprachliche Erscheinungen betrachtet werden." (Kövesi 1973: 98)

Thus, it is acknowledged that there are parallels in morphological structure in the objective conjugations found in the different Uralic languages, while on the other hand, the reconstruction of a single, coherent paradigm purely on the basis of the attested suffixes is impossible. However, the points of agreement between the attested suffixes may just be enough to reconstruct the conjugation's original character, from which its formal features can be abstracted.

From the structural comparison of the different Uralic languages that have an objective conjugation, it is clear why at least the third-person singular form is considered to go back to Proto-Uralic: every branch with an objective conjugation shows reflexes of the suffix *-sA*, and even some other Uralic languages without an objective conjugation have possible traces of it, chiefly Permic. However, there is also another common element to be found in the plural object suffixes, with a functional dimension of the objective conjugation in all branches except Hungarian. The plural object is marked with an *-*n*- in Samoyed (visible in first person forms only), Mansi (in the entire paradigm, partly recreated, but seemingly old in third person) and Mordvin (visible in 3sg., 1pl. and 2pl.). In Hungarian it may, formally speaking, have been preserved in the 2sg. ending *-d*,

although this does not have plural reference and other interpretations of this *-d* are also possible (see 8.3.3.3). This particular way of marking the plural is shared with the possessive declension, where **-n-* indicates the number of the possessum. The table below gives just those suffixes of singular and plural object forms in each branch with an objective conjugation that show (potential traces of) a difference between singular and plural objects.

Table 8.29: Mordvin, Hungarian, schematic Ob-Ugric and Proto-Samoyed objective conjugation endings. On the left in each cell are given the 3sg. object forms, to the right the 3pl. object forms. The subject person/number is in the far-left column. Secondary additions are marked in square brackets, while forms showing the contrast between singular -∅- and plural **-n-* are given in bold.

S ↓	Mordvin	Hungarian	Ob-Ugric	Samoyed
1sg.	-[∅] : -*n*	-*m* : –	*-***m*** : *-***n***[*sA*-*m*]	*-***mə*** : -[*j*]***nə***
2sg.	-[*k*] : -*t*	-*d* ← : –	*-[*n*] : *-[*nsA*-*n*]	*-*rə* : -[*j*]*tə*
3sg.	-***zA*** : -***nzA***	-*ja* : –	*-***sA*** : *-***nsA***	*-*tA* : -[*j*]*tA*
1pl.	-[*n*]*Ak* : -***nAk***	-[*j*]*uk* : –	—	*-***mA***[*t*] : -[*j*]***nA***[*t*]
2pl.	-[*n*]*k* : -***nk***	-[*já*]*tok* : –	*-*tA*[*n*] : *-*ntA*[*n*]?	*-*rA*[*t*] : -[*j*]*tA*[*t*]
3pl.	—	-*ják* : –	*-*sA*[*n*]? : *-*nsA*[*n*]?	—

To reiterate, the two common elements that appear in almost every branch are (1) the third-person singular suffix **-sA* (in all), and (2) the possessive plural suffix **-n-* (at least in Mordvin, Mansi and Samoyed). The former is usually given as the only actually reconstructible aspect of the objective conjugation for Proto-Uralic (e.g., Keresztes 1999, Körtvély 2005; Abondolo 1998, etc.), while I have not come across particular mention of the latter.

As briefly summarized above, there are two main theories on the origins of the objective conjugation, one interpreting it as the product of suffixed object pronouns, and the other connecting it with the possessive declension. The former interpretation is closest to the Tocharian situation (cf. 8.2.2 and Peyrot 2019a), but it has a number of flaws. It is often assumed that the ending **-sA* could be in origin an anaphoric object pronoun **sA*, suffixed to the unmarked 3sg. present; e.g., **kala-m kanta-∅* 's/he carries a fish-ACC' next to **kanta-∅-sa* 's/he carries it', where the object **kala-m* is replaced by an anaphoric pronoun in the second example (e.g., Abondolo 1998: 29–30, Rédei 1998/99; Keresztes 1999: 107, Honti 1998/99: 117). The assumed anaphoric object pronoun **-sA* appears to be only accusative in value, not in form, since it does not show any accusative suffix. If there was an accusative suffix at the end of this pronoun originally, it has been lost. Rédei (1998/99) argues that loss is impossible, because no final accusative **-m* or **-t* could have been lost by sound law in the majority of the relevant languages. According to Rédei, the absence of an accusative suffix can be understood because no further reference to the

object was necessary. The use of the pronoun suffix by itself supposedly already indicated the presence of a definite object.

According to Honti, on the other hand, there was actually an earlier accusative suffix, and it would be the ultimate cause of the difference between the objective and subjective conjugation suffixes (Honti 1998/99: 116–117); e.g., 1sg.sbc. *-m* vs. 1sg.obc. **-mi* as if from **-mV* and **-mVt* respectively.[104] The phonologically unexpected loss of this accusative marker would simply be because grammatical morphemes may follow different sound laws than "normal" words (Honti ibid.).

Whether or not the original anaphoric pronoun was explicitly marked with an accusative suffix, the creation of the third person singular objective ending singular is intuitively easy to understand in this scenario. Over time, the combination of an endingless third person singular verb form and object pronoun were univerbated, creating the first beginnings of the objective conjugation as we know it. The first and second person endings, as well as the marking of the dual and plural objects, would have been created afterwards. The details of this process are very vague, however. As also pointed out by Havas (2004), an immediately apparent issue with the origin of the objective conjugation suffixes as erstwhile object pronouns is the fact that the first and second person suffixes (**-mi*, **-ti*, etc.) look like the corresponding pronouns as well, but never refer to first or second person objects. Instead, they invariably index first or second person subjects/agents and third person objects.

In an attempt to account for this, Keresztes (1999: 105), discussing the origins of the Mordvin objective conjugation specifically, reconstructs some considerable semantic ambiguity: "[...] **kunda-sV* could mean 'he/she catches ~ he/she catches him/her/it; he/she/it is caught (passive meaning)', **kunda-mV* 'I catch ~ he/she catches me; I am caught (passive meaning)', **kunda-tV* 'you (Sg) catch ~ he/she catches you (Sg); you (Sg) are caught (passive meaning)'." However, it is not at all clear why the forms should have such a wide range of possible interpretations, and why only the active interpretation is ever preserved

There are also other difficulties with the idea that objective conjugation endings constitute suffixed object pronouns. The plural marker **-n-*, as well as dual markers containing the dual **-k-* (preserved in Mansi and Khanty, reinstated in Samoyed, but lost in Mordvin and Hungarian) appear before the objective endings that index the agent, which is not the place where we would expect them if the object suffix like **-sA* were, etymologically, a suffixed object. The plural of a suffixed object like that should be ***-sA-*

[104] The 3sg. objective conjugation suffix would originally also have been different from the corresponding possessive suffix by virtue of a different ending, namely acc. **-sVt* vs. gen. **-sVn*, according to Honti (1998/99: 117). However, this is rather an attempt at internal reconstruction, since neither *-t* nor *-n* are actually found in either of the endings.

t or **-*sA-j*, or the like, not *-*nsA*. Since a formal identity in the structure of the possessive declension and objective conjugation paradigms can (and in my opinion, should) be reconstructed for Proto-Uralic on the basis of Mordvin, Mansi and Samoyed, any functional derivation of these suffixes in the pre-Proto-Uralic period should depart from that formal identity and explain how it arose and why these two categories are so intimately connected to each another (see also 8.3.3.5 on this question).

Table 8.30: The Proto-Uralic subjective and objective conjugations. Most endings of the objective conjugation cannot be reconstructed directly based on the endings preserved in the daughter languages and are instead extrapolated based on the general structure.

S ↓	sbc.	3sg.obc.	3du.obc.	3pl.obc
1sg.	*-*m*	*-*mi*	*-*kV-mi*	*-*ni* (< *-*n-mi*)
2sg.	*-*n*/*t*	*-*ti*	*-*kV-ti*	*-*n-ti*
3sg.	*-∅	*-*sA*	*-*kV-sA*	*-*n-sA*
1du.	*-*mijn*	*-*mijn*	*-*kV-mijn*	*-*nijn* (< *-*n-mijn*)
2du.	*-*tijn*	*-*tijn*	*-*kV-tijn*	*-*n-tijn*
3du.	*-*k*	*-*sAjn*	*-*kV-sAjn*	*-*n-sAjn*
1pl.	*-*mAk*	*-*mAk*	*-*kV-mAk*	*-*nAk* (< *-*n-mAk*)
2pl.	*-*tAk*	*-*tAk*	*-*kV-tAk*	*-*n-tAk*
3pl.	*-*t*	*-*sAk*	*-*kV-sAk*	*-*n-sAk*

8.3.3 Functional reconstruction of the objective conjugation

We have now had ample illustrations of what the objective conjugation looks like in the various Uralic branches, and so we come to its function. The function of objective conjugation in Samoyed, Mansi and Khanty is centred around the same pragmatic feature: topicality. If an object is topical (either the primary or secondary topic of a sentence), the verb will agree with it using verbal endings from the objective conjugation. In Mordvin and Modern Hungarian the objective conjugation is used with definite objects instead (cf. below), but even in earlier Hungarian, the use of the objective conjugation did not align with definiteness per se (Marcantonio 1985). In this section I will summarize the functions of the objective conjugation in each branch where it occurs, based on the available literature on the topic.

8.3.3.1 Samoyed

The functions of the objective conjugation are fairly constant throughout the Samoyed languages, although there are still a few gaps in our knowledge of some specifics. In this subsection, I will mainly focus on the situation in Tundra Nenets, as the use of the objective conjugation has been researched quite extensively by especially Irina

Nikolaeva, and the same general patterns as in Tundra Nenets seem to be found in the other Samoyed languages.

Dalrymple and Nikolaeva (2011) provide a very clear description and overview of the use of the Tundra Nenets objective conjugation in relation to the topicality of the object. I will here reproduce some of their examples to help illustrate the functions of the objective conjugation. Dalrymple and Nikolaeva explain that whenever there is no particular pre-established background to a statement, or if the background includes only information about the subject and not the object, the objective conjugation cannot be used. Thus, the sentence in (19) with the verb in the subjective conjugation can answer questions of the types "what happened?", "what did a/the man do?" or "what did a/the man kill?"

19. Tundra Nenets (Nikolaeva & Dalrymple 2011: 128; glosses adapted)
    xasawa *ti-m* *xada-°-∅* / **xada-°-da*
    man reindeer-ACC kill-AOR-SBC.3SG kill-AOR-SG.OBC.3SG
    'A/the man killed a/the reindeer.'

It cannot, however, answer the question "what did a/the man do to the/a reindeer?" Such a question already presupposes the existence of a reindeer, and in that case, the verb has to be in the objective conjugation, as in (20).

20. Tundra Nenets (Nikolaeva & Dalrymple 2011: 128; glosses adapted)
    xasawa *ti-m* *xada-°-da* / **xada-°-∅*
    man reindeer-ACC kill-AOR-SG.OBC.3SG kill-AOR-SBC.3SG
    'A/the man killed a/the reindeer.'

Both the subject and object may remain unexpressed in such a case a well, as they are both readily available from the context and referenced with the suffix on the verb; cf. (21).

21. Tundra Nenets (Nikolaeva & Dalrymple 2011: 128; glosses adapted)
    xada-°-da
    kill-AOR-SG.OBC.3SG
    'He killed it.'

The use of the objective conjugation in Tundra Nenets is not dependent on the status of the subject as a topic, only that of the object (Dalrymple & Nikolaeva 2011: 129). One significant exception to the pattern described so far pertains to first- and second-person pronouns: those are never accompanied by a verb in the objective conjugation, even if they constitute a topical object (Dalrymple & Nikolaeva 2011: 130). This restriction is

shared by other Samoyed languages (e.g., Wagner-Nagy 2019: 375–376 on Nganasan; Budzisch 2021: 146 on Selkup).

At least for Tundra Nenets, Nikolaeva points out that there is also an implication that the action described with a verb in the objective conjugation has also reached its completion, i.e., a connection with perfective aspect, as in (22) (Nikolaeva 2014: 207). I have not seen mention of a similar situation in the other Samoyed languages, but it does find a parallel in Mordvin (see 8.3.3.4).

22. Tundra Nenets (Nikolaeva 2014: 207; glosses adapted)

a. *nyísya-myi* *ŋəno-m* *syerta-°-da*?
father-SG.POSS.1SG boat-ACC make-AOR-SG.OBC.3SG
'Has my father finished making the boat?'

b. *nyísya-myi* *ŋəno-m* *syerta-°-∅*?
father-SG.POSS.1SG boat-ACC make-AOR-SBC.3SG
'Did my father make a boat?'

While the objective conjugation is closely connected with the direct object, there is no associations between the objective conjugation and the indirect object (Dalrymple & Nikolaeva 2011: 132). The indirect object of a ditransitive verb like 'give' is in the dative/lative (a local case), which cannot agree with the objective conjugation. Only the direct object in the sentence below determines whether the verb is in the subjective or objective conjugation

23. Tundra Nenets (Nikolaeva 2014: 272; glosses adapted)

Petya *Maša-n°h* *ti-m* *myiq-ŋa-∅* / *myiq-ŋa-da*
PN PN-LAT reindeer-ACC give-AOR-SBC.3SG give-AOR-SG.OBC.3SG
'Petya gave a/the reindeer to Masha.'

The Enets languages make use of the objective conjugation in a similar fashion. Its use is described by Tereščenko (1973) and Sorokina (2010) as connected to whether the "logical stress" falls on the object or not, a general description with which Khanina and Shluinsky broadly agree (Khanina & Shluinsky 2015; see now also Khanina & Shluinsky 2024).

Khanina and Shluinsky have specifically investigated the use of the objective conjugation along several parameters, principally its associations with word order and definiteness, and show that standard (SOV) word order and indefinite objects are correlated with the subjective conjugation, while non-standard word order and definite objects are correlated with the objective conjugation. These correlations are especially strong if they occur together, so that both definite and indefinite nouns in standard word order are less likely to be associated with the objective conjugation than they would be

in non-standard word order, or if other constituents intervene between the object and the verb (Khanina & Shluinsky 2015: 408). This is shown in (24) for Forest Enets and in (25) for Tundra Enets.

24. Forest Enets (Khanina & Shluinsky 2015: 404; glosses adapted)[105]
    a. *tɔrse* *ɔburu* *kɔmita-∅*
       such thing like-SBC.3SG
       'He likes such a thing.'
    b. *tɔrse* *ɔburu* *ŋulʲ* *kɔmita-đa*
       such thing much like-SG.OBC.3SG.
       'He likes such a thing very much.'

25. Tundra Enets (Khanina & Shluinsky 2015: 404–405; glosses adapted)[106]
    a. *tʃike* *anʲ* *pe* *mua-∅*
       this and wood do-SBC.3SG
       'She put the wood down again'
    b. *dʲaudʲa* *sɔrja* *sudʲeʔ* *mu-da-đa*
       flour bowl inside do-FUT-SG.OBC.3SG
       'She will put the flour in a bowl'

Wagner-Nagy describes for Nganasan that the use of the objective conjugation is not determined by features like definiteness or animacy of the object (Wagner-Nagy 2019: 230). Rather it can be used to refer anaphorically to an object that was previously mentioned (Wagner-Nagy 2019: 338–339). Pronominal objects do not co-occur with a verb in the objective conjugation (Wagner-Nagy 2019: 339).

26. Nganasan (Wagner-Nagy 2019: 339; glosses adapted)
    śelujkʲa-ðį *küüü-ʔa-∅* *koða-ʔa-tu*
    naked.horn.deer-SG.POSS.3SG die-AOR.PFV-SBC.3SG kill-AOR.PFV-SG.OBC.3SG
    'The reindeer with naked horns is dead, he killed it.'

In Selkup, the precise relationship between the objective conjugation and the status of the object as either (in)definite or (non)topical has not yet been entirely elucidated, and various scholars have described the phenomenon in different and sometimes

[105] The original translations in Russian are, for a., 'Такую вещь он любит', and for b., 'Такую вещь он очень любит'.

[106] The original translations in Russian are, for a., 'Она опять положила дрова', and for b., 'Она муку в миску положит'.

contradictory ways (see Budzisch 2021: 145–147 with references). The relation between subjective conjugation and an indefinite object does seem clear, and conversely, any object that is definite requires the objective conjugation to be used. This means that only indefinite objects can be combined with either conjugation (Budzisch 2021: 147–148; 151–152). However, there are also a number of attestations of intransitive verbs inflected in the objective conjugation, which have not yet received a satisfactory explanation (Budzisch 2021: 149). I will leave the intricacies of the Selkup objective conjugation aside for now.

8.3.3.2 Mansi and Khanty

The use of the objective conjugation in the Ob-Ugric languages largely agrees with that of Samoyed, and has been described as centred around the topicality of the object (Nikolaeva 1999a, 1999b, 2001; Skribnik 2001; Virtanen 2014). The objective conjugation is not used when the focus is on the object, e.g., when it is contrastive or newly introduced, or in questions (e.g., Nikolaeva 1999a: 64ff. with a detailed description for Khanty; cf. also example (19) for Tundra Nenets above). If an object is the secondary topic of a sentence, the verb is generally used in the objective conjugation. If the object is the primary topic, however, another strategy can be used, namely passivization (Kulonen 1989, Skribnik 2001).

One additional difference between the use of the objective conjugation in Mansi and Khanty as opposed to that in Samoyed concerns its use in combination with personal pronouns. In Samoyed, object personal pronouns (especially of the first and second person) always require the verb to be in the subjective conjugation, even if the first and second person constitute a topical entity in the sentence (cf. above). In Ob-Ugric, on the other hand, object personal pronouns of the first- and second-person can agree with verbs in the objective conjugation (e.g., Nikolaeva 1999a: 65; Virtanen 2014: 406). There are no special endings in the objective conjugation to mark this agreement with non-third person objects, however.

In both Mansi and Khanty there are some further particular features of the objective conjugation. Eastern Mansi combines its use of the objective conjugation with an accusative in *-m*. This accusative is obligatory with verbs in the objective conjugation in this variety of Mansi (Virtanen 2014: 399). The variation in object marking is based on the topicality of the object (Virtanen 2014: 392–393). Some example sentences where the accusative *-m* and the objective conjugation are combined are given in (27) and (28).

27. Eastern Mansi (Virtanen 2014: 406; glosses adapted)

sos-mø	*uus*	*köält-øs-tø*
moose-ACC	again	frighten-PST-SG.OBC.3SG

'He frightened the moose again.'

28. Eastern Mansi (Virtanen 2014: 406; glosses adapted)
ään-øm *jål=ääl-ääl-øn*
1SG-SG.POSS.1SG down=kill-IMP-SG.OBC.2SG
'Kill me!'

The accusative ending *-m* is not used in combination with the subjective conjugation (Virtanen 2014: 407). This is shown by Virtanen with various examples, of which one is reproduced here as (29).

29. Eastern Mansi (Virtanen 2014: 407; glosses adapted)
kom *jowt-nyõõl* *wø-s-∅*
man bow-arrow take-PST-SBC.3SG
'The man took a bow and arrow'

In the last example sentence, the bow and arrow had not been previously mentioned, and *they* are thus non-topical. Virtanen describes the connection between the objective conjugation and topicality as follows: "the subjective conjugation is for focal constituents, the objective conjugation for topical ones. In the latter one, zero anaphora express high topicality" (Virtanen 2014: 403). Virtanen reports that in the data on Eastern Mansi, 35% of sentences with a verb in the objective conjugation do not contain an overt nominal object. In such cases, the object has usually been mentioned recently and does not need to be activated again, such as in example (30), where a hen, the object, has been caught and killed in the preceding narrative (Virtanen 2014: 403).

30. Eastern Mansi (Virtanen 2014: 403; glosses adapted)
kom *juw* *tåt-øs-tø,* *pon-øs-tø* *ølø*
man home bring-PST-SG.OBC.3SG put-PST-SG.OBC.3SG away
'Th[e] man brought it (i.e., the hen) home and put it aside.'

Second person objects can also be omitted, although their omission is less common than that of third person objects. The fact that the objective conjugation then agrees with a covert second person object instead of a third person object is not marked any different (Virtanen 2014: 404–405).

The use of the objective conjugation in Northern Mansi, which lacks the accusative in *-m* completely, can be understood in similar terms as that of Eastern Mansi in all other regards (Skribnik 2001). Skribnik further addresses a phenomenon whereby datives can be promoted to object function, in which case they agree with the verb in the objective conjugation. Example (31), reproduced from Skribnik (2001: 228), illustrates this.

31. Northern Mansi (Skribnik 2001: 228; glosses adapted)

a. *am* *tawe-n* *mōjt* *mōjt-eɣ-um*
1SG 3SG-DAT tale tell-PRS-SBC.1SG
'I tell him a tale.' (< 'What do you do for him?')

b. *am* *tawe* *mōjt-əl* *mōjt-i-lum*
1SG 3SG.ACC tale-INS tell-PRS-SG.OBC.1SG.
'I tell him a tale.' (< 'What do you tell him?')

As a part of this same phenomenon, instruments can be promoted in the same way (Skribnik 2001: 229). Virtanen describes these constructions, and their interplay with the passive, for Eastern Mansi as well. The main factor affecting the choice between the different possible constructions is the topicality of the various participants (Virtanen 2012).

In her description of Northern Khanty, Nikolaeva (1999a: 65) points out that there are sentence pairs where the only difference is the conjugation of the verb (subjective or objective), while the object itself remains formally the same. This shows that the choice of the verbal inflection is determined by something other than formal characteristics of the object. Nikolaeva explains that focused objects do not trigger agreement, while topical objects do, in the same way as in Mansi. Focus often coincides with the focus position directly in front of the verb, but it need not, indicating that agreement does not strictly depend on the position of the object in the sentence (Dalrymple & Nikolaeva 2011: 144). Khanty, like most Mansi varieties, does not preserve the accusative in *-m*, so that the object remains unmarked. This is illustrated with the example sentences in (32) below.

32. Northern Khanty (Nikolaeva 1999a: 64; glosses adapted)

a. *ma* *tam* *kalaŋ* *we:l-s-əm*
1SG DEM reindeer kill-PST-SBC.1SG
'I killed this reindeer.'

b. *ma* *tam* *kalaŋ* *we:l-s-e:m*
1SG DEM reindeer kill-PST-SG.OBC.1SG
'I killed this reindeer.'

c. *ma* *tam* *kalaŋ* *we:l-s-ələm*
1SG DEM reindeer kill- PST-PL.OBC.1SG
'I killed these reindeer.'

Focus objects are opposed to topical objects, which are accompanied by a verb in the objective conjugation. Nikolaeva reports that, in a corpus of Khanty folklore texts, 89%

of transitive clauses with a subjective verb have an object referent that is newly introduced (focus), while the object of 83% of the objective verbs is already established in the discourse (non-focus). Some objects that are technically newly introduced may also trigger objective agreement, but in this case, they are related to another established noun in the discourse: for instance, possessed nouns are related to their possessor by inference, as in example (33) below (Nikolaeva 1999a: 75).

33. Northern Khanty (Nikolaeva 1999a: 75; glosses adapted)

loːw-əl	*wu-s-li*	*pa*	*oːx-əl*	*joxəs*			
horse-SG.POSS.3SG	take-PST-SG.OBC.3SG	and	head-SG.POSS.3SG	backwards			
kir-s-əlli	*pa*	*paj-əl*	*oːlŋəl*	*kir-s-əlli*			
harness-PST-SG.OBC.3SG	and	tail-SG.POSS.3SG	forwards	harness-PST-SG.OBC.3SG			

'He took the horse and harnessed its head backwards and its tail forwards.'

If a possessor of an object is topical, the verb has to be in the objective conjugation as well, despite the object noun itself not being topical (Nikolaeva 1999b: 346).

34. Northern Khanty (Nikolaeva 1999b: 346; glosses adapted)

Juwan	*motta*	*xot-əl*	*kăśalə-s-em*	/ **kăśalə-s-əm*
John	before	house-SG.POSS.3SG	see-PST-SG.OBC.1SG	see-PST-SBC.1SG

'I saw John's house before'

Mansi is also sensitive to such considerations, and entities that are associated to the topic by a possessive relationship are considered eligible for topic status as well upon their first introduction, so that they can immediately combine with a verb in the objective conjugation or the passive (Skribnik 2001: 231).

8.3.3.3 Hungarian

In Modern Hungarian, the objective conjugation is used in combination with definite objects. As such, it is generally called the definite conjugation in this language. This first example is taken from Marcantonio (1985: 268), and illustrates the most basic dichotomy in the use of the subjective and objective conjugations in Hungarian. It is required in the first sentence on account of the possessive suffix and the accompanying definite pronoun.

35. Hungarian (Marcantonio 1985: 268; glosses adapted)

a. *az* *újság-om-at* *kér-i*
DEF newspaper-SG.POSS.1SG-ACC want-OBC.3SG
'He wants my newspaper'

b. *egy* *magyar* *újság-ot* *kér-∅*
INDEF Hungarian newspaper-ACC want-SBC.3SG
'He wants a Hungarian newspaper'

A definite pronominal object can also be omitted from a sentence, as its presence is marked on the verb ending in the objective conjugation already (36a). First- and second-person pronouns in do not trigger object agreement with the verb, with the exception of the special suffix *-lek*/*lak* used specifically in the case of a first-person subject acting upon a second person object, as in (36b). However, it is also possible to omit first- and second-person pronouns in combination with the subjective conjugation, as in examples (36c) and (36d) (Janda, Laakso & Metslang 2022: 896).

36. Hungarian (a., c., d. from Janda, Laakso & Metslang 2022: 896; glosses adapted; b. constructed after the same pattern)

a. *azért* *sír-∅* *mert* *nem* *szeret-i* *senki*
for.that cry-SBC.3SG because NEG love-OBC.3SG nobody
'He/she is crying because nobody loves him/her'

b. *azért* *sír-sz* *mert* *nem* *szeret-lek*
for.that cry-SBC.2SG because NEG love-2SG.OBC.1SG
'You are crying because I do not love you.'

c. *azért* *sír-ok* *mert* *nem* *szeret-∅* *senki*
for.that cry-SBC.1SG because NEG love-SBC.3SG nobody
'I am crying because nobody loves me'

d. *azért* *sír-sz* *mert* *nem* *szeret-∅* *senki*
for.that cry-SBC.2SG because NEG love-SBC.3SG nobody
'You are crying because nobody loves you'

The obligatory connection between the objective conjugation and the (overt) definiteness of the object found in Modern Hungarian is not reflected in the Old Hungarian material, as shown by Marcantonio (1985) and É. Kiss (2010/11) with examples like the following. In (37) the object is possessed, and therefore morphologically definite, but in spite of this, the verb is in the subjective conjugation.

37. Early Hungarian (Marcantonio 1985: 290; glosses adapted)

es	*tarsibeli*	*kiral-ok*	*es*	*ziget-ek*	*aiandok-ai-t*	*aiandokoz-nak*
and	friendly	king-PL	and	islander-PL	gift-PL.POSS.3-ACC	give-SBC.3PL

'... and friendly kings and islanders give their gifts.'

Conversely, the objective conjugation is also attested with objects that do not take a definite article, as in the following example (38), where the lance had already appeared in the preceding text as well.

38. Early Hungarian (Marcantonio 1985: 289; glosses adapted)

sebes	*számszereǵ-et*	*raǵad-t-a*	*vala*
quick	lance-ACC	grasp-PST-OBC.3SG	be.3SG

'He gripped the quick lance.'

Marcantonio's analysis of the Old Hungarian objective conjugation as originally agreeing with topical objects is generally supported by É. Kiss (2010/11). However, while Marcantonio separates the formation of the Hungarian objective conjugation from that of the other Uralic languages and posits a new background for the formation of the entire conjugation, É. Kiss further points to the agreements in the basic structure of the 3sg. suffix (cf. 8.3.2) and the syntax with regards to topicality as described for Khanty by Nikolaeva (cf. 8.3.3.2) to argue for a common formation of the beginnings of the objective conjugation with at least Ob-Ugric and Samoyed (É. Kiss 2010/11: 135–137).

8.3.3.4 Mordvin

In Mordvin the objective conjugation can only be used in combination with definite objects (e.g., Alhoniemi 1996: 145), and it correlates with perfective aspect (Bernhardt 2020: 21). The definiteness of the object is also marked on the object noun itself, which will stand in the genitive (or genitive-accusative) case *-ń* if definite, and remain unmarked if indefinite. The genitive suffix is typically enlarged by either a further definite marker or a possessive ending when applied to regular nouns; especially proper nouns and most pronouns do not receive this suffix, and it can also be absent in certain folklore texts (Bernhardt 2020: 22–23, with the examples reproduced here in (39)).

39. Erzya Mordvin (Bernhardt 2020: 22–23; glosses adapted)

a.

ram-i-ń	*alaša*
buy-PST-SBC.1SG	horse

'I bought a horse.'

b. *ram-i-ja* *alaša-ńť*
buy-PST-OBC.3SG.1SG horse-GEN.DEF
'I bought the horse.'

c. *ram-i-ja* *alaša-nzo*
buy-PST-OBC.3SG.1SG horse-GEN.SG.POSS.3SG
'I bought his/her horse.'

d. *ńe-i-ja* *Maśa-ń*
see-PST-OBC.3SG.1SG PN-GEN
'I saw Masha.'

Not all objects that appear in the genitive and marked with the nominal definite marker require the verb to be in the objective conjugation. The subjective conjugation can be used to allow for an imperfective interpretation. Use of the objective conjugation makes only a perfective interpretation possible (Bernhardt 2020: 23–24, with the examples in (40)).

40. Erzya Mordvin (Bernhardt 2020: 23–24; glosses adapted)

a. *veď-eńť* *kand-i-ń*
water-GEN.DEF carry-PST-SBC.1SG
'I was carrying the water / I carried the water.'

b. *veď-eńť* *kand-i-ja*
water-GEN.DEF carry-PST-OBC.3SG.1SG
'I carried the water.'

To describe imperfective events with definite objects, the object may be placed in the inessive case. In such instances, it is combined with the subjective conjugation (Bernhardt 2020: 24).

The link between perfectivity and the objective conjugation is not absolute, however. For example, certain verbs describing cognition or perception, like E *ńejems*, M *ńäjəms* 'see' and EM *sodams* 'know' are often used in the objective conjugation, irrespective or their aspectual interpretation, and especially in Moksha, frequentative verbs may be inflected in the objective conjugation without losing their imperfective interpretation (Alhoniemi 1996: 147–151).

8.3.3.5 Proto-Uralic

Samoyed, Mansi, Khanty and Old Hungarian share their use of the objective conjugation in combination with topical objects, as opposed to focus objects. Modern Hungarian and Mordvin, on the other hand, use their objective conjugation in combination with

definite objects. Topicality and definiteness are closely linked conceptually, so that it is easy to imagine the one use changing into the other. Since both Modern Hungarian and Mordvin are among the only Uralic languages to have encoded definiteness in their grammar, and seeing as Old Hungarian shows an association of the objective conjugation with topicality, it is preferable to reconstruct the topic-associated function still found in the Siberian Uralic languages as original.

A minor point of disagreement found between Samoyed and Hungarian on the one hand and Mansi and Khanty on the other is the compatibility of the objective conjugation with personal pronouns. Samoyed and Hungarian disallow the use of objective conjugation in combination with first and second person pronouns, while in Mansi and Khanty such pronouns do trigger objective agreement on the verb. Hungarian here agrees with Samoyed, and those two have probably developed independently from each other for a long time, certainly, much longer than Mansi and Khanty, who are known to have been in close contact for hundreds of years. It is therefore more likely that Samoyed and Hungarian together preserve the original situation.[107] This means that in Proto-Uralic, as in Samoyed and Hungarian, object pronouns of the first and second person would not have triggered the use of the objective conjugation, even though they are conceptually topical/definite as referents to speech act participants.

Dalrymple and Nikolaeva reconstruct the opposite direction of development, arguing that first- and second-person pronouns are more likely to be primary topics than secondary topics, so that they should, at some stage, have been deemed to be out of line with third person objects, leading to a restriction of the use of the objective conjugation (Dalrymple & Nikolaeva 2011: 200–201). However, the fact that first- and second-person objects can occur as secondary topics with the objective conjugation in Mansi and Khanty would seem to suggest that the appropriate situations do exist.

Dalrymple and Nikolaeva (2011: 200) also adduce the fact that Mansi and Khanty often prefer to create a passive construction when a first- or second-person object is the primary topic, promoting it to the subject-role, but such constructions are not used in the same way in the Samoyed languages. One situation in which object agreement with a first- or second-person might thus be expected based on topicality has thus been largely removed in the Ob-Ugric languages, while an awkward gap in topic agreement is maintained in Samoyed and Hungarian. I think, therefore, that the original function of

[107] Coppock and Wechsler argue for such a reconstruction in a very different way, based on an idea of feature loss in various stages. Mansi and Khanty would have lost the earlier third-person selecting feature of the objective conjugation that is still active in Samoyed and Hungarian (Coppock & Wechsler 2010). Their entire analysis is concerned purely with functional considerations, however, without any reference to form or arguments from phylogeny.

the objective conjugation in Proto-Uralic would have been to index topical third person objects only.

An original connection with topical objects further accords well with the conclusions in subsection 8.3.2.6 above, that the objective conjugation endings are closely allied with the endings of the possessive declension: the genitive (possessive) is also used to mark the agents of passively used participles, which are often finitized in Uralic (cf. 7.3 *passim*), and the use of the passive voice is cross-linguistically connected with the topicality of the object (e.g., Cooreman 1987, Givón 1994, Imamura 2022). The use of (accusative) objects in combination with verbs in the objective conjugation can be seen as the result of a reinterpretation of the construction from passive to active, which may have taken place in Proto-Uralic already. Further research is required to work out the details.

With regards to the function of the objective conjugation in pre-Proto-Samoyed, it is likely that the objective conjugation already marked topical objects and was opposed to the subjective conjugation, which was employed in those cases where the object constituted a non-topical or focus constituent; and of course, when the subject was the only participant to an intransitive verb action. Functionally, this is the objective conjugation that should be compared with Tocharian.

8.4 Comparison between Tocharian and Uralic

In this final section of chapter 8, we will compare the verbal object marking found in Tocharian and Uralic. After our detailed look at both language families, we will be able to better evaluate the comparison put forward by Peyrot (2019a), according to which the Tocharian pronoun suffixes may have been innovated under the influence of the objective conjugation found in early Samoyed.

There are various immediate structural discrepancies between the respective object-marking strategies. The Tocharian pronoun suffixes are clearly extra elements that are added after the normal verbal endings agreeing with the subject. In the Uralic objective conjugation, the suffixes are not "stacked" in the same way. Unlike most of Uralic, Tocharian is furthermore not limited to third-person reference, with its specific first- and second person suffixes in the singular. In Uralic, an objective conjugation with special first- and second-person object suffixes is only found in Mordvin, where it has been innovated as an expansion of the objective conjugation with the addition of personal object pronouns. Some of these differences are illustrated in Table 8.31 below with some verbal forms from Tocharian B and Tundra Nenets.

Table 8.31: TB *nek-* 'destroy' past tense forms, and NeT *xada-* 'kill' aorist forms with reference to the object. Singular only.

	Tocharian B			Tundra Nenets		
S	1sg. O	2sg. O	3sg. O	1sg. O	2sg. O	3sg. O
1sg.	–	*nekwā-c**	*nekwā-ne**	–	–	*xadaə-w°*
2sg.	*nekasta-ñ**	–	*nekasta-ne**	–	–	*xadaə-r°*
3sg.	*neksa-ñ**	*neksa-c**	*neksa-ne**	–	–	*xada°-da*

The Tocharian pronoun suffixes clearly descend from earlier clitic (direct and indirect) oblique pronouns. This is reflected in both their form and function, and can be understood with reference to the other Indo-European languages: clitic pronouns can be reconstructed for Proto-Indo-European, and they were thus inherited into the earliest Tocharian. It is not obvious that the Uralic objective conjugation should similarly be derived from clitic object pronouns, although this possibility does constitute one of the major theories on its origins in the deep past. Within any reconstructible paradigm, however, the first- and second-person objective conjugation endings always phonologically correspond more closely to the agent than to the patient, making a simple analysis of those suffixes as clitic object pronouns very difficult (cf. 8.3.2.6 for more details).

At the same time, it must be pointed out that clear object pronouns were added in the objective conjugation of some Uralic languages. Most strikingly in Mordvin, first and second (and perhaps third) person pronouns greatly expanded the objective conjugation, and in the Khanty third person singular was enlarged with a third person singular object as well. This shows that, while a strict analysis of every objective conjugation ending as an object pronoun is difficult, such structures could be innovated within the basic framework of the Uralic objective conjugation in some instances. As initial formations, the Tocharian pronouns suffixes and the Uralic objective conjugation do appear to be quite different.

Functionally there is not a full match between Tocharian and Uralic either. The Tocharian pronoun suffixes are much more versatile than the Uralic objective conjugation, since they agree not only with direct objects, but also with indirect objects, possessors of objects and indirect objects, agents of passive verbs, locations, sources, etc. The objective conjugation agrees with the object and the subject, but not with the other categories that the Tocharian pronoun suffixes can index. The Ob-Ugric languages do have some possibility for agreement with an indirect object, but only if the indirect object is promoted from its usual status as a dative argument to be marked as a direct object instead (see 8.3.3.2). Use of the objective conjugations in such constructions is obligatory, so that semantically, one could argue that a verb in the objective conjugation

agrees with an indirect object. However, this phenomenon is still structurally quite different from the Tocharian usage of the pronoun suffixes to agree with an indirect object. In Mansi, the original direct object is demoted to an instrumental instead, while all case assignment in Tocharian remains as in any ditransitive construction.

The use of the Tocharian pronoun suffixes to mark a non-subject participant as a secondary topic most closely aligns with the functions of the objective conjugation, and a great similarity between the Tocharian pronoun suffixes and the Uralic objective conjugation is that both are used as anaphoric reference to non-subjects on the verb. We could imagine that the Tocharian change to host the anaphoric pronouns on the verb rather than elsewhere in the sentence was inspired by Uralic, where non-subject anaphoric reference is hosted on the verb in the form of the objective conjugation. The additional functionality of the Tocharian pronoun suffixes may then be interpreted as a holdover from their original flexibility, transferred from their original more general clitic position elsewhere in the sentence to the verb specifically, as illustrated in Table 8.32.

Table 8.32: Schematic mechanism for the conversion of Proto-Indo-European pronominal clitics to Tocharian pronoun suffixes on a Uralic model.

anaphoric reference...	U	T	IE	
...to the direct object	+	+	+	pivot
...to the indirect object	-	+	+	transferred
...to a possessor	-	+	+	transferred
...on the verb	+	+	-	changed

To summarize, we can conclude that the main changes from Proto-Indo-European to Tocharian in the use of anaphoric pronouns has been that they are hosted on the verb, generally in the standard sentence-final position. Few traces are left of their original Proto-Indo-European behaviour as clitic elements, so that they can reasonably be considered suffixes to the verb. Their function remains mainly anaphoric, although some agreement is found as well, especially when the referent is (secondarily) topical.

Both the structural and functional nature of the Tocharian pronoun suffixes can be understood quite well when considering their origins as Proto-Indo-European pronominal clitics. These could be used anaphorically, and occurred in sentences together with finite verb forms agreeing with the subject. The position of the Tocharian pronoun suffixes as quite strictly post-verbal is an innovation, however, which is not accounted for directly by any aspect of their early sources.

The Uralic objective conjugation anaphorically marks objects with the verb in its standard sentence-final position, like in Tocharian. Agreement with overt object nouns seems to be more common than in Tocharian, but its occurrence is triggered by similar

considerations of topicality. Formally, the endings of the objective conjugation could hardly be interpreted as pronominal object clitics, but the position of the object pronouns in Tocharian as verbal suffixes could conceivably have been inspired by the position of object-agreement suffixes on the verb in Uralic. Most other aspects of the Tocharian pronoun suffixes are probably best understood as continuations from the state of affairs already present in Proto-Indo-European, as illustrated above in Table 8.32 above. On its own, it cannot be said that the Tocharian pronoun suffixes provide clear evidence of Uralic influence, but in combination with the other cumulative evidence, they constitute a plausible additional contact feature.