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The development of negation in the Transeurasian languages

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In this article, the historical development of sentential negation is compared across the Japonic, Koreanic, Tungusic, Mongolic, and Turkic languages to make inferences about the expression of negation in the common Transeurasian proto-language. Integrating typological considerations, including grammaticalization theory, into the argumentation, the approach taken here differs from previous studies, which are limited to form-function comparison of individual markers. The historical development of negation in the Transeurasian languages is argued to involve a grammaticalization pathway whereby an independent negative verb developed into a preposed negative auxiliary and then, either transferred its inflection to the lexical verb to become an invariant preposed particle or, else, moved to a postposed position to become a suffix on the lexical verb. Taken together with the form-function correspondences of the negative markers, these correlations lead to the reconstruction of genealogically motivated cycles of grammaticalization in the Transeurasian family.

Keywords: negation, genealogical relationship, Transeurasian languages, diachronic typology, cyclic grammaticalization

1. Introduction

In this article, I will compare and reconstruct the historical development of negation in the Transeurasian languages. The label “Transeurasian” was coined by Johanson & Robbeets (2010: 1–2) to refer to a large group of geographically adjacent languages that include up to five different linguistic families: Japonic, Koreanic, Tungusic, Mongolic, and Turkic. It is distinguished from the more traditional term “Altaic”, which will be reserved for the linguistic continuum consisting of Tungusic, Mongolic, and Turkic languages only. The question of whether these five families go back to a single common ancestor is one of the most disputed issues in historical comparative linguistics. In spite of recent claims from both supporters and critics that the controversy has been resolved (Starostin et al. 2003: 7, Vovin 2005: 71), the debate is not settled yet. For an overview of the history of this longstanding debate, I refer to Robbeets (2005: 18-29). The controversy is not primarily fueled by a shortage of similarities, but by the difficulty of accounting for them: are all shared forms generated by borrowing, or are some of them residues of inheritance? The reconstruction and comparison of negative morphology can, in my opinion, substantially help to unravel this question.

Negative auxiliaries and suffixes are generally thought to provide reliable evidence in establishing genealogical relatedness. According to Poppe (1977: 222), the negative verb **e-* ‘not to be’ is an important feature common to all

Uralic and Altaic languages, which can not have been borrowed. Even opponents of the Transeurasian hypothesis, like Janhunen (1996: 215, 216) seem to agree on this point, arguing that the comparison of the negative auxiliary **e-* between Tungusic and Mongolic is so convincing that “the likelihood of a binary relationship between Mongolic and Tungusic appears greater than within any other pair of adjacent entities.”

In Transeurasian comparative literature, we find numerous reconstructions of negative morphology, particularly concentrating on the negative markers **ana-* (Ramstedt 1949: 10; Miller 1971: 255-285; 1985: 38, 49-50; Menges 1975: 96-110; Whitman 1985: 244; Martin 1991: 288; Starostin 1991: 253, 267, 277; Unger 2000: 664; Vovin 2001: 186-87; Starostin et al. 2003: 228, 300; Robbeets 2005: 414; Choi 2005: 42-43; Frellesvig 2010: 121), **e-* (Ramstedt 1924, 1935: 128, 1952: 106; Poppe 1960: 65; 1974: 146; Menges 1975: 96-110; Starostin 1991: 44, 291; Janhunen 1996: 215, 216; Starostin et al. 2003: 488) and **ma-* (Ramstedt 1949: 138-139; Miller 1971: 147, 275; 1985: 61, Menges 1984: 277; Martin 1991: 288, 1996: 77; Starostin et al. 2003: 228). In this article, I will suggest a different approach to the historical comparison of negation in the Transeurasian languages. Whereas previous studies have mainly compared the form and function of the negative markers, the present approach will integrate typological considerations, including grammaticalization theory, into the argumentation.

As far as the historical development of clausal negators is concerned, it is possible to distinguish basically between two grammaticalization pathways, one involving non-verbal sources and the other verbal sources. The phenomenon coined “Jespersen’s cycle” by Dahl (1979), whereby nominal minimizers and

generalizers that serve to reinforce negation are reanalyzed as negative markers is representative of the first type (van der Auwera 2009, 2010; Willis, Lucas & Breibarth 2013). While Jespersen's cycle may be the best-known historical pathway for the development of sentential negators, it is not the only grammaticalization process to be found. There is a second type of development, which is less common cross-linguistically, whereby the negators arise from verbal auxiliaries; for a functional perspective, see Payne (1985: 221) and for a formal perspective, see van Gelderen (2008). Among the ultimate sources of these auxiliaries we find independent negative verbs such as negated forms of the copula 'to be', negated existential verbs — a strategy known as Croft's (1991) cycle — or verbs with a negative connotation such as 'to refuse', 'to deny', 'to reject', 'to avoid', 'to fail', 'to leave' or 'to lack' (Givón 2001: 267–8; Heine & Kuteva 2002: 188, 192).

One of the characteristics of the Uralic languages, for instance, is the expression of negation by means of a construction, comprising an inflected negative auxiliary and a non-finite form of the lexical verb. This construction gradually develops in ways, which result in a redistribution of inflectional categories between the negative and the lexical verb until the negative auxiliary becomes totally denuded and turns into an invariant negative particle. According to Comrie (1981: 354), the behavior of negative constructions in the Uralic languages suggests the following universal hierarchy of verb categories: imperative > person / number > tense > mood > aspect > voice. The hierarchy predicts that categories to the right will be the first to transfer to the lexical verb, while categories to the left such as imperative tend to remain as long as possible on the auxiliary.

This article is organized as follows. In Sections 2 and 3, I will examine the correspondences in the development of two negative auxiliaries, leading to the reconstruction of, respectively, pTEA **ana-* and pA **e-*. In Sections 4, I will argue that although the evidence for the reconstruction of the negative auxiliary pTEA **ma-* is rather weak, the development of this marker in the Turkic languages may still reflect a prototypical Transeurasian negative cycle. In Section 5, I will conclude this article by suggesting a scenario for the historical development of negation in Transeurasian with a special focus on typological change.

2. pTEA **ana-* negative verb

2.1. pJ **ana-* negative verb

The default negative marker in Old Japanese is the suffix *-(a)n-*, illustrated in example (1). The allomorph *-an-* is used after consonant verbs and after *r-* and *n-* irregular verbs, while the allomorph *-n-* is used after vowel verbs, including irregular verbs. This form is reflected in Eastern Old Japanese and in Ryukyuan as well (Vovin 2009: 779-792).

- (1) OJ *omo₂p-an-u* *api₁da-ni*
 think-NEG-ADN interval-LOC
 ‘while [I] did not think’ (MYS V: 794; Vovin 2009: 783)

As illustrated in (2), Old Japanese uses a negative imperative prefix OJ *na-* (Vovin 2009a: 569-573). Given that the imperative was originally formed on the basis of

the bare verb stem, the prefix OJ *na-* can be derived as an imperative form of the existential auxiliary pJ **(a)na-* ‘not to exist’. This analysis implies that in proto-Japanese, the negative auxiliary was preposed to the lexical verb and that it inflected for the category imperative. Note that contrary to Vovin’s (2009a: 570-571) gloss of *na-ne-sime₂* as NEG-sleep-CAUS(INF), the negative imperative does not precede the infinitive, but rather the imperative form of the verb. This can be deduced from the observation that the negative imperative of OJ *s(e)-* ‘to do’ is *na-so₂* rather than ***na-si*. While the forms of imperative and converb (so-called “infinitive”) coincide for regular vowel verbs, the verb OJ *s(e)-* ‘to do’ distinguishes between an imperative *so₂* and an infinitive *si*. Hence, the negative imperative construction with *na-* can be explained as a negative auxiliary in the imperative followed by a lexical verb in the imperative. This recalls the tendency of the imperative to be redundantly marked on the negative auxiliary and the lexical verb in Uralic (Comrie 1981: 351).

- (2) OJ *yasu i na-ne-sime₂*
 easy sleep NEG.IMP-sleep-CAUS.IMP
 ‘Do not let [my beloved] sleep an easy sleep’
 (MYS XIX: 4179; Vovin 2009: 570-571)

An indication of the use of pJ **ana-* as a postposed negative auxiliary comes from adjectival negative nominalizations in *-ke₁naku*, illustrated in (3). This construction goes back to the adjectival adnominal form pJ **-ki* (> OJ *-ki₁*) plus the postposed negative auxiliary **ana-* (> OJ *-an-*) and the bound noun **-aku* (> OJ *-aku*), thus OJ *yasu-ke₁naku* ‘what is not easy’ in (3) derives from **yasu-ki*

an(a)-aku (be.easy-ADN not.exist-NML). Since the adnominalizer OJ *-ki*₁ is a word-final suffix, **ana-* must have had an auxiliary status at the time before the word boundary disappeared through the contraction of **i* and **a* to OJ *e*₁.

(3) OJ *nage*₂*k-u* *so*₁*ra* *yasu-k-e*₁*n-aku* *n-i*
lament-ADN PT be.easy-ADN-NEG-NML DV-CONV
‘although even to lament is not easy...’ (MYS XVII: 3969; Vovin 2009: 786)

Finally, Old Japanese uses a negative existential adjective *na-* B ‘to be non-existent, not to exist’, illustrated in example (4), which is also reflected in Eastern Old Japanese and Ryukyuan. If we assume that initial vowel loss occurred due to prosodic factors, the negative adjective OJ *na-* may be internally related to the verbal suffix OJ *-an-* and reflect a common negative existential auxiliary pJ **ana-* ‘not to exist’. The internal relationship between the negative adjective and the negative suffix is in agreement with Martin’s (1987: 821) analysis that the adjective pJ **na-* derives from a defective negative verb, which is also reflected in constructions with the negative suffix.

(4) OJ *yo*₂*-k-e*₁*ku pa* *na-si-ni*
good-ADN-NML TOP not.exist-NML-LOC
‘As there was no improvement’ (MYS V: 904; Vovin 2009: 464)

Figure 1 summarizes the diachronic development of the negative marker pJ **(a)na-*. Similar to the development of negation described for the Uralic languages in the introduction, Japanese reflects a pathway, whereby an

‘Why [the disciple of your master] is not coming?’

(1447 Sek 6:29b; Martin 1992: 420)

Gradually, however, the particle *ani* is being renewed by an inflected negative auxiliary MK/K *anh-* ‘not to be/ do’. The auxiliary derives from a reinforced negative construction consisting of *ani* plus MK *ho-*, K *ha-* ‘to do, be’. As illustrated in (6), the negative auxiliary takes full finite inflection and follows the lexical verb *ka-* ‘to go’, which is in an invariant nominal form.

(6) K	<i>apenim</i>	<i>un</i>	<i>ka-ci</i>	<i>anh-usy-e</i>
	father	TOP	go-NML	NEG-HON-FIN
	‘Father is not going’			

2.3. pTg *ana- negative verb

The Tungusic languages preserve evidence for the reconstruction of a negative verb pTg **a:na-*. The observation that various negative nouns call for an accusative indefinite — also called “partitive accusative” (Benzing 1955: 56-58, Menges 1968: 63) — when they are used to indicate the lack of possession, signals their deverbal origin because nouns are not expected to govern this case. The accusative indefinite case in Even *nod-la* in example (7) or in Udehe *ńukte-le* in example (9) for instance, indicates that the marker of negative possession originally is a derived verb. In line with this view, Table 1 derives the negative nouns Ma. *aku:*, Even *a:n*, *ac*, *acca*, Evk. *acin*, Ud. *anci*, *ata* and Na. *ana:* from a common negative verb **ana-* plus various resultative noun suffixes such as **-xU*,

*-xA, *-c, *-cA, *-ci-n and the Udehe negative subjunctive auxiliary from the same verb plus the subjunctive marker *-tA. This analysis is further supported by parallel formations on the basis of the negative auxiliary *e- in Section 3.3. Note that the nasal is sporadically lost in Even and Evenki reflexes of pTg *-nc- clusters, such as in *xü:nce:n ‘elbow’, e.g. Even *iecen*, Evk. *i:ce:n*, Olch. *unce(n)*, Sol. *i:ncẽ:*.

Table 1. Reflexes of the negative verb pTg *ana- in the Tungusic languages

pTg *a:na-	Manchu	Even	Evenki	Udehe	Nanai
+ *-xU RES.NML	aku: negative noun				
+ *-xA RES.NML		a:n ~ a:ŋ negative noun			ana ~ ana: negative noun
+ *-c PERF.NML		ac negative noun			
+ *-cA RES.NML		acca negative noun			
+ *-ci-n RES.NML			a:cin negative noun	anci negative noun	
+ *-tA- SUBJ/PERM				ata- SUBJ/PERM negative	

In examples (7) and (9), the original negative verb takes a nominal argument, while in (8b) and (10), it takes a verbal argument. In example (7) and (8b) the negative is preposed to its argument, while in (9) it is postposed. Example (10) illustrates how the Manchu negative noun *aku:* contracts with adnominal forms of the verbs to form a suffix.

- (7) Even *Iwan ac nod-la*
 Iwan NEG beauty-ACC.INDEF
 ‘Iwan is not handsome’ (Benzing 1955: 30)

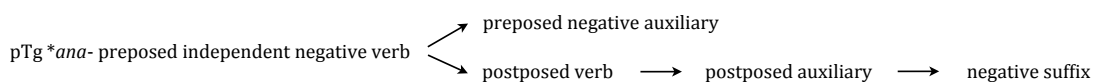
(8a) Ud. <i>diga-ta-mi</i>	(8b) Ud. <i>ata-mi</i>	<i>diga</i>
eat-SUBJ-1SG	NEG.SUBJ-1SG	eat.ADN
'I will perhaps eat'	'I will perhaps not eat'	

(9) Ud. *ńukte-le* *anči* *ni:*
hair-ACC.INDEF NEG man
'a bald person' (Nikolaeva 1999: 477)

(10) Ma. *erge-re-be* *bai-ra-ku:*
rest-ADN-ACC seek-ADN-NEG
'[I] do not seek rest' (PASH 2:328; Gorelova 2002: 262)

Figure 2 summarizes the development of the negative verb pTg **ana-* from a diachronic viewpoint. The originally independent negative verb, which could be preposed to its nominal argument, as reflected in (7) developed either into a preposed negative auxiliary as in (8b), or else, it moved to postposed position as in (9), where it developed auxiliary use and ultimately became a suffix on the lexical verb as in (10). This development is similar to that of pTg **e-* described in Section 3.3 below.

Figure 2. The diachronic development of the negative verb pTg **ana-*



2.4. A speculative lexicalization in Turkic

The only evidence for the reconstruction of a negative prefix pK *e- comes from the existential verb pair K *iss-* ‘to be, exist’ and *eps-* ‘not to be, be nonexistent, lack’. The Middle Korean reflex of the existential verb MK *is-* ~ *is(i)-* ‘to be, exist, stay’ displays a contractile dissyllabic vowel stem that is still present in nominalized stems such as MK *isi-lq*, *isi-m* and *isi-n*, which enables us to reconstruct pK **isi-* ‘to be, exist’ with a disyllabic root. Ramstedt (1939: 56), Menges (1975: 100-101) and Martin (1997: 27) have proposed deriving the negative existential from its affirmative counterpart prefixed by a negative marker. This leads Martin to reconstruct the negative pK *e- and the existential pK **pisi-* ‘to exist’ on the basis of its negative counterpart MK *eps-* < **e-pisi-*. Even if pK **pisi-* ‘to exist’ would provide a clear parallel with the Tungusic copula pTg **bi-si-* (be-RES-), this would not explain the disappearance of the initial *p- in pK **isi-* ‘to be, exist’. Although copular verbs are expected to preserve traces of obsolete morphology, it remains speculative to reconstruct a negative prefix pK *e- on the basis of a single verb pair.

3.3. pTg *e- negative verb

The Tungusic languages have preserved ample evidence supporting the reconstruction of a negative verb pTg *e- ‘not to be, not to exist, to lack’. The form is widely distributed in the northern Tungusic languages, e.g. Evk. *e-*, Even *e-*, Neg. *e-*, Sol. *e-*, as well as in the southern, e.g. Na. *e-*, Olcha *e-*, Orok *e-*, Ud. *e-* and Oroch *e-*, but is absent in Manchu. However, its predecessor Jurchen preserves traces in the negative nouns *ei-xe* and *esi(n)* (Starostin et al. 2003: 488).

There are some instances of independent use of the negative verb, i.e.

without a lexical verb, where it means ‘not to be, not to exist, not to live’ as in the Evenki example in (12).

- (12) Evk. *esile* *e-dyeli-m* *tadu-gla*
 now NEG-FUT-1SG there-ENCL
 ‘Now I will not be (live) there’ (Nedjalkov 1994: 27)

In examples (13) and (14), the negative verb is preposed, although it acts as a finite auxiliary to the lexical verb, which assumes an invariant adnominal form. The Evenki negative auxiliary in example (13) is marked with inflectional categories such as the past *-ce-* and the 3SG *-n*, whereas the lexical verb takes derivational markers such as the causative *-v-*. In Orok, the negative auxiliary can optionally transfer its function as person-number carrier to the lexical verb, as illustrated in example (14a) and (14b).

- (13) Evk. *nungan* *nekun-mi* *e-ce-n* *suru-v-re.*
 he younger.brother-POSS.REFL NEG-PST-3SG go.away-CAUS-ADN
 ‘He did not lead his younger brother away.’ (Nedjalkov 1994: 11)

- (14a) Orok *si* *e-ci-si* *bu:-ra*
 you NEG-PST-2SG give-ADN
 (14b) Orok *si* *e-cil* *bu:-ra-si*
 you NEG-PST give-ADN-2SG
 ‘You didn’t give’ (Payne 1985: 214)

In emotive sentences in Evenki, such as in example (15), the negative auxiliary may move to a postposed position.

(15) Evk. *nungan songo-ro e-ce-n*
 he cry-ADN NEG-PST-3SG

‘He did not cry [—what’s the use of crying?]

The Nanai examples in (16) and (17) represent the final stage of the negative cycle: the auxiliary either ends up as the preposed past adnominal negative particle *ecie* in (16), or alternatively, it assumes the status of derivational suffix on the lexical verb, reducing its phonological form to the lengthening of the stem-final vowel.

(16) Na. *ecie xola: naońjokan*
 NEG.PST.ADN read-ADN boy

‘a boy who did not read’ (Menges 1968: 236)

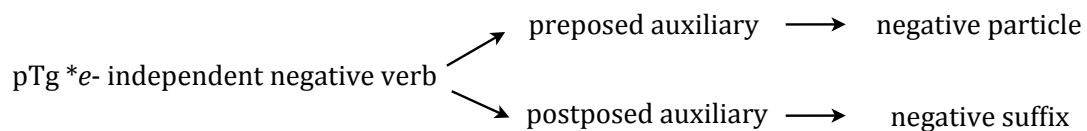
(17) Na. *xola:-ci-si*
 read.NEG-PST-2SG

‘You didn’t read’ (Menges 1968: 238)

Figure 2 summarizes the development of the negative verb pTg **e-*. The source of grammaticalization is an independent negative verb ‘not to exist’, which gradually began to take verbal arguments. The basic Tungusic pattern of sentential negation consisted of an negative auxiliary followed by a lexical verb

in an invariant adnominal form. Inflectional categories such as tense, mood, person and number markings were carried by the negative auxiliary, whereas derivational categories such as actionality and diathesis were indicated by the lexical verb. When undergoing grammaticalization in preposed position, the auxiliary gradually transferred its inflections to the lexical base, starting with categories to the left of Comrie’s hierarchy. Since prefixing is very rare in the Tungusic languages, preposition of auxiliaries inhibited affixation and the ultimate target of this grammaticalization process, therefore, was a preposed invariant negative particle, such as in (16). Alternatively, the mobility of the negative auxiliary within the sentence could make room for postposed use of the auxiliary. In contrast to preposed auxiliaries, postposed auxiliaries were free to fuse with the lexical verb and ultimately they became a suffix on the verb stem, as in (17).

Figure 3. The development of the negative verb pTg *e-



3.4. pMo *e- negative verb

The Middle and Written Mongolian negative verb stem *ese-* ‘not to be, to be lacking’ may be derived from the negative verb *e- and a deverbal resultative suffix (Sanžeev 1962: 280; Bese 1974: 7). Mongolian *ese-* has lexicalized in a number of conjugated forms such as with the past marker *-be-* in example (18). Since the negative does not take a verbal argument in this case, it is used as an

independent lexical verb with the meaning ‘not to be (in the state resulting from the preceding verb)’. As such, it has the same main clause status as the lexical verb that it accompanies. The negative verb **e-* ‘not to be, be non-existent, to lack’ may have lexicalized in other verbs, such as WMo. *eče-* ‘to become lean’ and WMo. *ele-* ‘to wear out’, if these can be regarded as derivations with the progressive *-čA-* and the intensive-iterative *-lA-*, respectively.

- (18) WMo. *ükü-be-üü* *ese-be-üü*
 die-PST-INTER NEG-PST-INTER
 ‘Did [he] die or did [he] not?’ (Poppe 1954: 175)

Written Mongolian and Middle Mongolian further use a preposed negative adverb *ese*. Example (19) suggests that the negative auxiliary is used in its invariant form, having transferred its entire inflection to the lexical verb, i.e. the past marker *-be* is attached to *ire-* ‘to come’.

- (19) WMo. *manu bayši ese ire-be*
 our teacher NEG come-PST
 ‘Our teacher did not come’ (Poppe 1954: 175)

Figure 4 summarizes the development the negative verb pMo **e-se-*. The source of grammaticalization is an independent negative verb , which gradually began to take verbal arguments. The original Mongolic pattern for verbal negation probably consisted in a fully inflecting negative auxiliary followed by a lexical verb in an invariant adnominal form. By the time of Middle Mongolian, however,

all inflections were transferred to the lexical verb, leaving the adverb *ese* as a denuded, invariant form.

Figure 4. Development of the negative verb pMo **e-se-*

pMo **e-se-* independent negative verb → preposed auxiliary → negative particle

3.5. pTk **e-* negative verb

Both the Western and Eastern branches of Turkic preserved traces of an original proto-Turkic negative verb **e-*. As far as Eastern Old Turkic is concerned, Mahmud al-Kašyari's 'Compendium of the Turkic languages' mentions a negative interjection and particle *eη*. According to Kašyari's lexicon, this interjection was used in Oghuz Turkic: when a man is given an order he says *eη eη* or *aη aη* 'no, no' (Kaš I: 40; Clauson 1972: 165; Choi 2005: 42-43.) It is plausible to analyze the interjection *eη* 'no, not' as a compound of the negative auxiliary **e-* and the imperative suffix illustrated in (20). According to Croft (1991: 8), a negative interjection is cross-linguistically frequently derived from an independent negative existential verb in a predicative form. In Amharic, for instance, the negative interjection *yälläm* 'no' is the 3rd singular masculine form of the negative existential verb.¹

(20) OTk. *kod-ma-η-lar*

put-NEG-IMP-PL

'don't put!' (DLT fol.289; Erdal 2004: 235)

¹ Note that the Russian negative interjection *net* 'no' has also developed from a negative existential predicate *net*, which derives from **ne je tu* (not is here) 'there is not'.

Chuvash, the only surviving representative of the Western Turkic languages, uses a negative particle *an* in the second and third persons of the so-called “prohibitive” mood, as illustrated in Table 2. In reality, the second person forms in this paradigm are imperatives, whereas the first persons can be regarded as optatives and the third persons as voluntatives (Johanson, pc.). Since the imperative plural *vulăr* ‘read!’ includes the second plural possessive suffix *-ăr* (e.g. *ača* ‘child’ -> *ač-ăr* ‘your (PL) child’), it probably derives from an optative nominalization **vula-a-ăr* (read-OPT.NML-POSS.2PL). The voluntatives carry a marker *-tĂr* or *-čĂr* that has no connection with third person endings, but may be related to the Chuvash causative suffixes *-tAr-* and *-ttAr-* (Benzing 1959: 721). If this morphological analysis is correct, the voluntatives would go back to imperative causative constructions, e.g. *vulatăr* ‘let [somebody] read!’, *vulačĂr* ‘let [somebody] read!’ and *an* would be the negative imperative marker. This would explain why the second and third persons of the so-called “prohibitive” share a single negative marker *an* (‘Do not have the reading!’ = ‘Don’t read!’; ‘Do not have the causation of the reading!’ = ‘Let him not read!’), while the first person uses the finite form *mar* of the negative verb (‘My optative reading does not exist’ = ‘I will not read’). The redundant marking of the imperative on the auxiliary and the lexical recalls the Old Japanese example in (2).

Table 2. The “prohibitive” mood in Chuvash (Krüger 1961: 158-159) and its possible derivation

1SG	<i>vulam mar</i> ‘I will not read’	1PL	<i>vular mar</i> ‘we will not read’
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2SG	an *a-n NEG-IMP 'do not read!'	vula *vula read.IMP	2PL	an *a-n NEG-IMP 'do not all read!'	vulär *vula-a-är read-OPT.NML-2PL.POSS
3SG	an *a-n NEG-IMP 'let him not read'	vulatär *vula-tar read-CAUS.IMP	3PL	an *a-n NEG-IMP 'let them not read'	vulaččär *vula-ttar read-CAUS.IMP

Since we know that Chuvash *a* corresponds to OTk *e* and derives from pTk **e*, while Chuvash *-n* corresponds to OTk *-ŋ* and derives from pTk **-ŋ*, Chuvash *an* corresponds regularly to Old Turkic *eŋ*, reflecting pTk **eŋ*.²

Figure 4 summarizes the development of the negative verb pTk **e-*. Karakhanide preserves evidence for the reconstruction of an independent negative verb, whereas Chuvash reflects auxiliary use. The negative auxiliary was preposed and carried inflectional categories, such as imperative (**-ŋ*), whereas the invariant lexical verb carried derivational categories such causative (Chu. *-tär* or *-ččär*).

Figure 4. Development of the negative verb pTk **e-*

pTk **e-* independent negative verb → preposed auxiliary → preposed negative particle

4. Weak evidence for pTEA **ma-* negative verb

Although the Old Turkic verbal negative suffix *-mA-* in (21), has been the subject

² This correspondence is reflected, for instance, in OTk *teriŋ*, Chu. *tarän* < pTk **teriŋ* 'deep'.

of numerous etymological proposals, the reconstruction of an independent Transeurasian verb pTEA **ma-* with negative semantic properties remains speculative. Nevertheless, it is possible to reconstruct a third negative cycle, involving pTk **ma-*.

- (21) OTk *yek* *içgek-ig* *kértgün-me-z* *er-ti-ler*
 demon ghost-ACC believe-NEG-ADN be-PLUPERF-3PL
 ‘They were not believing in demons’ (TT VI: 131; Erdal 2004: 246)

Like Old Turkic, Chuvash reflects the verbal negative as a suffix *-m(A)-* (Krüger 1961: 142-143), which is clearly internal to the verb morphology; it precedes inflectional affixes such as those of tense, mood, person and number, while it follows all of the valence and voice suffixes such as those indicating reflexives, reciprocals, causatives and passives. The internal position of negation in Turkic can be explained on the grounds that the original negative was a negative verb, inflected for tense, mood, person and number, which fused with an invariant, though possibly derivationally complex, lexical verb.

In Chuvash, we also find some instances, such as the optatives in Table 2 and the debitive in example (23), where the negative marker is expressed analytically. The debitive *-mAllA* is formed from the verbal noun in *-mA* by the addition of an old directive *-llA*. The negative postposition *mar* represents the adnominal — or so-called “aorist” — form of an original negative auxiliary **ma-*. Its counterpart in Old Turkic is the adnominal negative suffix *-mA-z*, for example in (22), word-final **-r* having changed to *-z* in Eastern Turkic, but being retained in Western Turkic. The negative particle *mar* may have originated as an unbound

negative auxiliary pTk **ma-* ‘not to exist’, an assumption supported by its lack of boundedness, the deverbal derivative nature of its component **-r* and the observation that it takes a nominal argument. Its reduction to the status of a derivational suffix on the lexical verb across the Turkic languages probably represents the final stage of its development.

(23) Chu. *epě kil-melle mar*
 I come-DEB NEG
 ‘I don’t have to come’ (Krüger 1961: 159)

Figure 5 summarizes the development of the negative verb pTk **ma-*, whereby an independent negative verb develops into a postposed auxiliary and, eventually, fuses with the lexical stem.

Figure 5. Development of the negative verb pTk **ma-*

pTk **ma-* independent negative verb → postposed auxiliary → negative suffix

Given the originally independent nature of pTk **ma-* ‘not to exist’, lexical comparisons are more convincing than morphological ones. A possible cognate in Mongolic is WMo *maγu ~ maγui*, (SH) MMo. *ma’u(n)* ‘bad, evil, unfavorable, poor, below standard’, if this form is a compound of pMo **ma-* ‘not to become, be unbecoming’ and the deverbal noun suffixes WMo. *-γU / -γUi / -γUn* (Poppe 1954: 46).

Martin’s (1991: 288) suggestion that MJ *mana* ‘don’t!’ in nominalized

expressions of the type *verb koto mana* ‘refrain from verb!’ should be compared, is not unlikely because the *-na* element may be the desiderative suffix, which in Old Japanese can express the speaker’s desire that the addressee should perform an action (Vovin 2009: 665). From this viewpoint, pJ **ma-* may be a negative auxiliary meaning ‘not to do, to refrain from’. However, the proposal remains speculative because *mana* is not attested in Old Japanese and occurs only sporadically in Middle Japanese as a reading aid annotating Classical Chinese texts so that they could be read in Japanese.

Martin (1991: 288, 1996: 77) further proposed including MK *ːma(l)-*, K *ma:(l)-* ‘to desist, refrain from (tr.)’ used as an auxiliary in nominalized expressions of the type MK *verb-ti ːmal.la* ‘refrain from verb!’. However, the original root of the verb, pK **mal-*, probably had a final liquid, which is reflected neither in Turkic nor in Japanese.

5. Negation cycles in Transeurasian

The Transeurasian languages have preserved evidence supporting the reconstruction of at least two negative verbs: an older proto-Transeurasian form **ana-* ‘not to be, not to exist’ and a newer proto-Altaic form **e-* with the same meaning. Whereas pTEA **ana-* was preserved in the eastern Transeurasian languages, it was replaced by an innovative negative verb **e-* in Altaic. In Turkic **e-* was replaced by a yet another negative verb **ma-*, which underwent cyclic grammaticalization into a suffix in Turkic, but not in the other Transeurasian languages.

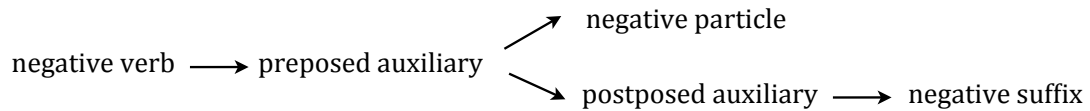
Table 4. Reflexes of the negative verbs pTEA **ana-*, **e-* and **ma-* in the Transeurasian languages.

pTEA	pJ	pK	pTg	pMo	pTk
<i>*ana-</i> independent	<i>*ana-</i> independent auxiliary suffix	<i>*an-</i> independent	<i>*ana-</i> independent auxiliary suffix		[<i>*an-</i> independent]
pA <i>*e-</i> independent auxiliary			<i>*e-</i> independent auxiliary suffix	<i>*e-</i> independent auxiliary	<i>*e-</i> independent auxiliary
<i>*ma-</i> independent	<i>*ma-</i> 'refrain from'	<i>*mal-</i> 'refrain from'		<i>*ma-</i> 'not to become'	<i>*ma-</i> independent auxiliary suffix

As previously noted by Transeurasian scholarship, the negative markers indeed correspond in form and function, but according to my opinion, we can supplement this evidence with a diachronic typological dimension, which turns the shared negation into a stronger case for relatedness.

The basic typological pattern of negation shared by the Transeurasian languages is a construction consisting of a preposed finite negative verb and an invariant lexical verb, whereby inflectional categories are carried by the negative verb and derivational categories by the lexical verb. Moreover, the historical development of negation in the Transeurasian languages seems to involve the common pathways schematized in Figure 6.

Figure 6: Pathways of negative grammaticalization shared by the Transeurasian languages

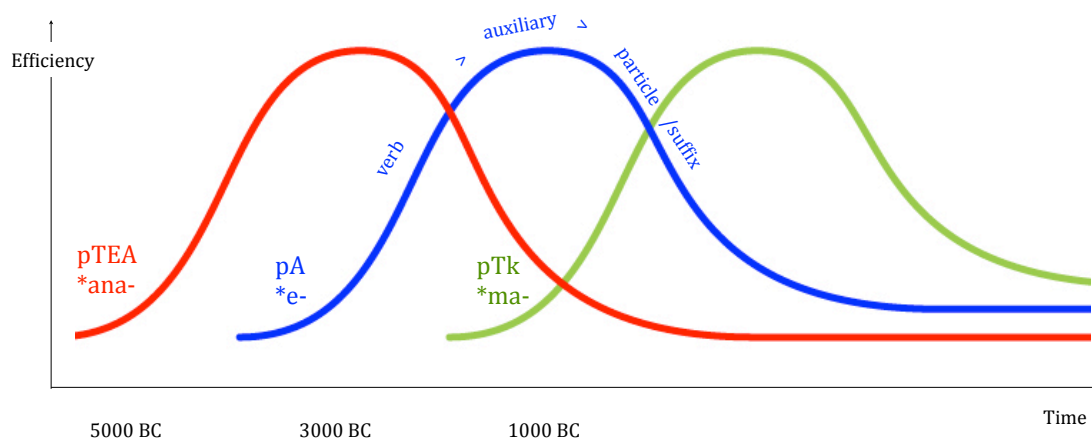


The source of grammaticalization was an independent negative verb, either a negative existential such as **e-* and **ana-* or a verb with implied negative properties such as **ma-* ‘refrain from’. These verbs grammaticalized into fully inflecting auxiliaries, which took an invariant form of the lexical verb as their argument. In spite of the SOV morphology of the Transeurasian languages, the finite auxiliaries tended to be preposed to the lexical verb. In preposed position, the auxiliaries gradually transferred their inflection to the lexical verb to become totally denuded. Since prefixing is rare among the Transeurasian languages, affixation was inhibited and the final stage of grammaticalization is an invariant preposed particle. Alternatively, the auxiliaries could move to a postposed position, where they were ultimately free to assume a suffix status. The negatives OJ -*ana-*, OTk -*mA-*, Chu. -*m(A)-* and the Nanai suffixed vowel length all have an internal position to the verb morphology in common, preceding inflectional suffixes, but following derivational ones. This can be explained on the grounds that their source used to be a negative auxiliary, inflected for tense, mood, person and number, which fused with an invariant, though possibly derivationally complex, lexical verb.

Morphologically compact processing by way of particles and suffixes increases the speed and ease of transmitting messages at the expense of transparency. As one gains speed, one loses clarity. When the notional importance of negation was outbalanced by its formal weakness, time had come

for replacement. Replacement by a fully inflecting auxiliary construction marks a new cycle of grammaticalization. The evidence indicates at least three successive waves of grammaticalization for the Transeurasian negative markers. The cyclic grammaticalization of the negative verbs is graphically represented in Figure 6.

Figure 6. Cyclic grammaticalization of negative verbs in Transeurasian



We see clear areal preferences for certain patterns of marking negation: many Indo-European languages in western Europe tend to display non-verbal Jespersen cycles, whereas Uralic and Transeurasian make use of verbal strategies. It is further possible to draw a boundary between Uralic and Transeurasian based on the tendency for the Transeurasian languages to develop negative auxiliaries to suffixes, which is unseen in Uralic. The basic pattern of clausal negation using an auxiliary is worldwide a minor type to begin with, found in only 40 (17%) out of 240 languages in Dahl' s (1979) sample, which is areally biased towards Uralic and Altaic languages, in 45 (4%) out of 1011 languages in Dryer' s (2005) sample, and in 16 (5%) out of the 297

languages in Miestamo's (2005) sample. By consequence, the particular development of negative auxiliaries to invariant particles or suffixes is logically even rarer. If this specific grammaticalization process is found geographically concentrated in a particular region, it, therefore, deserves a historical motivation: it has either areally diffused or it is inherited from a common ancestor.

Arguably, the indications of inheritance are stronger than those of diffusion. The observation that the shared grammaticalization pattern of negation combines with a formal correspondence of the negative markers reflecting the pattern is highly indicative of inheritance (Robbeets 2013). Besides, contact-induced grammaticalization has been characterized as "change against the grain" or atypical grammaticalization, whereas genealogically motivated grammaticalization has been regarded as "change that reinforces similarities" because it tends to maintain uniformity between related languages (Aikhenvald 2013). The repetition of similar grammaticalization processes on various formally related negative verbs at different points in time across the Transeurasian languages indicates that we are dealing with an inherited pattern.

The observation that these processes of grammaticalization are shared across the Transeurasian languages does not necessarily imply that they were already completed in proto-Transeurasian and inherited as polysemy in the daughter languages. The reflexes of pTEA **ana-*, for instance, all share the source "independent negative verb", but not the target "auxiliary", which suggests that the grammaticalization of negation took place independently in some of the daughter branches. The phenomenon whereby cognate morphemes undergo parallel processes of grammaticalization long after separating from the ancestral

language is known as “parallelism in drift” or “Sapirian drift”. It can be explained by the expectation that related languages try to maintain pre-existing categories in spite of formal renewal (see Heath 1998; Aikhenvald 2013). Under the present scenario, the pathway of development of sentential negation was a specific, language-internal force in proto-Transeurasian, which remained decisive in shaping new grammaticalization pathways of negation in the daughter languages. In this way, prior chains of grammaticalization became decisive in shaping the new ones within the family. The grammaticalization of negation is thus driven by an inherited mechanism, which is recurrent in the Transeurasian family.

Abbreviations

a) Languages

Chu.	Chuvash
Evk.	Evenki
Ma.	Manchu
MK	Middle Korean
MMo.	Middle Mongolian
Na.	Nanai
OJ	Old Japanese
Olch.	Olcha
OTk.	Old Turkic

pA	Proto-Altaic
pJ	Proto-Japonic
pK	Proto-Koreanic
pMo	Proto-Mongolic
pTEA	Proto-Transeurasian
pTg	Proto-Tungusic
pTk	Proto-Turkic
Sol.	Solon
Ud.	Udehe
WMo.	Written Mongolian

b) Linguistic terms

ACC	accusative
ADN	adnominalizer
CAUS	causative
CONV	converb
COP	copula
DAT	dative
DEB	debtitive
DEP	dependent
ENCL	enclitic
FIN	finite
FUT	future
GEN	genitive

HON	honorific
IMP	imperative
INDEF	indefinite
INDEP	independent
INF	infinitive
INTER	interrogative
LEX	lexicalization
LOC	locative
NEG	negative
NOM	nominative
PASS	passive
PERM	permissive
PL	plural
PLUPERF	pluperfect
PRF	perfect
POST	postposed position
POT	potential
PREF	prefix
PREP	preposed position
PROC	processive
PRS	present
PST	past
PT	particle
REFL	reflexive
RES	resultative

SG	singular
SUBJ	subjunctive
SUF	suffix
TOP	topic

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