

Central Asian Turkic and Khalkha past tense systems arose through balanced contact

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Abstract. This paper presents initial evidence of shared innovations in the past tense systems of Central Asian (CA) Turkic languages and Khalkha Mongolian. The structural parallels in past tense and associated negation systems are absent in the older attested stages of both language families, such as Old Turkic and Middle Mongol, as well as in related contemporary languages outside of the CA region. Based on a comparative morphological analysis of data from native speaker consultations, reference grammars, and other published texts, the current study shows that both CA Turkic and Khalkha Mongolian developed a four-way organization of past tense marking, encoding distinctions in proximity and confirmativity. This shared system is further characterized by parallel patterns of suppletion, as well as the emergence of strikingly similar non-transparent negation strategies in both groups. We argue that these shared innovations are unlikely to have arisen independently or to have resulted from simple unidirectional borrowing. Instead, we argue that these data provide evidence for grammatical convergence. This process was likely driven by a period of sustained, balanced language contact and widespread bilingualism between the ancestral speech communities of modern Khalkha and CA Turkic speakers.

Keywords. Language Contact, Bilingualism, Multilingualism, Turkic Languages, Mongolic Languages, Tense-Aspect-Mood, Morphology, Negation

1. Introduction. Sustained historical contact between the Turkic and Mongolic language families is well-established and frequently evidenced by extensive lexical borrowing (Poppe 1955; Clauson 1959, 1960; Gülensoy 1974; Clark 1977; Kuhl & Sasse 1992; Илгербак 1986, 1997, 2005; Schönig 2003; Rybatzki 2011; Washington 2023). However, the extent to which this prolonged contact has influenced the grammatical structures of these families has remained largely unexplored. While previous studies have occasionally noted structural parallelisms (Brosig 2014, Washington 2023), to our knowledge there has not been a systematic investigation into their nature and origin. Focusing on Central Asian (CA) Turkic languages¹ and Khalkha Mongolian (Mongolic), we present initial evidence for convergence between the two families with regard to the past tense and associated negation systems.

Our cross-linguistic investigation reveals a set of shared innovations that are absent in both the earliest attested stages of these languages (e.g., Old Turkic, Middle Mongol) and in related

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¹ We use the term "Central Asian Turkic" loosely to refer to Turkic languages spoken in Central Asia, as opposed to those spoken in South Siberia, the Volga region, the North Caucasus, or other regions. It is not meant to refer to any particular grouping of Turkic languages related through descent. Our findings may more specifically apply to languages that were part of the Chaghatay Sprachbund (see Kontovas to appear), but further work is needed to understand the extent within Turkic of the features we examine.

The language codes used in this paper follow ISO 639-3: kaz=Kazakh, khk=Khalkha, kir=Kyrgyz, otk=Old Turkic, tat=Tatar, tyv=Tuvan, uzb=Uzbek, xal=Oirat/Kalmyk, xng=Middle Mongol.

contemporary varieties outside of the CA region. These innovations include a specific four-way organization of the past tense system based on proximity and confirmativity, distinctive patterns of suppletion, and non-transparent negation strategies involving both suppletion and existential negators.

We argue that these unique, shared structural features are unlikely to have arisen through independent innovation or simple unidirectional borrowing. Instead, we take these data to suggest grammatical convergence driven by a period of sustained, balanced language contact and significant bilingualism between the predecessors of the Khalkha and CA Turkic speech communities. These findings offer a novel line of structural evidence into the nature of Turkic-Mongolic contact.

Before proceeding to the main discussion, a methodological note is needed. A systematic comparison of Tense, Aspect, Mood, and Evidentiality (TAME) systems in Central Eurasian languages faces nontrivial methodological challenges, including inconsistent terminology in descriptive grammars and the lack of a pre-existing comparative framework. We address this by synthesizing data from native speaker consultation, reference grammars, and other published literary texts. In organizing the data, we prioritize morphological parallels, using semantic labels only as broad reference points. We pay close attention to correspondences across different languages' systems, and make an attempt to characterize them using consistent descriptions. Due to the lack of pre-established methodology for systematically investigating TAME systems across Turkic and Mongolic languages, we developed our framework from the ground up by synthesizing descriptive work on individual languages. While this study identifies structural similarities, it also brings into focus a range of fine-grained differences among the languages examined which require detailed investigation in future work. We thus position the current work as a preliminary study that provides a novel argument for convergence and establishes a basis for the more detailed cross-linguistic investigations that must follow.

The paper proceeds with background (Section 2), details of the past tense systems (Section 3) and negation strategies (Section 4), and concludes with a discussion (Section 5).

2. Background. Section 2.1 introduces the historical interaction between Mongolic and CA Turkic predecessors, and Section 2.2 defines the categories of proximity and confirmativity.

2.1. HISTORICAL INTERACTION BETWEEN MONGOLIC AND TURKIC LANGUAGES. It is known that Turkic and Mongolic languages have been in contact for a long time, though the precise timeline and geographical loci of the contact remain debated. Existing evidence for this prolonged contact comes from bidirectional lexical borrowing, a pattern revealed by several distinct types of lexical correspondences (Washington 2023 *inter alia*). First, the two language families have shared vocabulary, such as **qara* 'black', *buzaqū*^(otk)/*birayū*^(xng) 'calf', *ağıl*^(otk)/*ayıl*^(xng) 'settlement', which may be reconstructed to both Proto-Turkic and Proto-Mongolic; such vocabulary items are alternately cited as evidence for the Altaic hypothesis or attributed to one or the other language family and considered to be loaned to the other. Second, there are a lot of relatively early Turkic loanwords attested in Mongolic, such as *bilig*^(otk,xng) 'knowledge', *jimis*^(xng) 'fruit' (cf. *jemiš*^(otk) 'id.'), and *bülüg*^(xng) 'division' (cf. *bölüg*^(otk) 'id.')—known to be Turkic because they are derived from verb stems common in Turkic and absent in Mongolic. Third, Mongolic loanwords are also widely attested in Turkic languages. There are many Mongolic loanwords of different periods in Siberian Turkic languages, such as the earlier loan *doozun* <доозун>^(tyv) 'dust' (cf. *to'osun*^(xng) 'id.') and the apparently more recent loan *bažij* <бажьиң>^(tyv) 'building' (cf. *baašij*~*bääšij*^(xal) 'id.'). Mongolic loans are also found in CA Turkic languages,

such as *silewsin* <сiлeыcиH> ^(kaz) / *sülöösin* <сүлөөсүн> ^(kir) ‘lynx’ (cf. *sile’üsün* ^(xng) ‘id.’); as well as in Volga- and North Caucasus-area Turkic languages, such as *baja* <бaжa> ^(tat) ‘brother-in-law’ (cf. **baja* ^(xng) ‘id.’). Notably, their presence in Turkish is minimal (Tuna 1972, 1976; Schönig 2000).

In addition to demonstrating the existence of contact, data from loanwords offers insight into the nature of the interaction between Mongolic and predecessors of modern CA Turkic. Focusing on Mongolic loanwords in Kazakh and Kyrgyz, Washington (2023) argues that the evidence points to a period of sustained, balanced multilingualism, rather than unidirectional borrowing typical of an imbalanced power dynamic. This claim is supported by evidence from the semantic domains of Mongolic loanwords in Kazakh and Kyrgyz, which include domestic spheres such as household, kinship, and livestock. In contrast, no military, administrative, or religious Mongolic loans were found. If there had been bilingualism solely among Turkic speakers, then borrowings would have likely been limited to certain domains of life, such as public administration and military affairs. This empirical picture suggests intimate, community-level contact likely involving intermarriage and widespread bilingualism between different/both groups with similar prestige. Additionally, some have argued (e.g., Ligeti 1935) that the greater quantity of Mongolic loanwords in Siberian Turkic languages as compared to CA Turkic is a simple function of the greater relative distance of their historic homelands, as indeed there are even fewer Mongolic loanwords in Volga-area Turkic and virtually none in Anatolian Turkish. Instead, it appears that CA Turkic was in close contact with Mongolic, albeit for a limited period, resulting in an intermediate quantity of lexical loans, as well as the syntactic loans described herein; comparatively, Siberian Turkic was in close contact with Mongolian until at least Russian colonisation, although it is not clear that the nature of the contact was the same. In this case, loanword quantity does not necessarily correlate with geographic distance, but also with duration of contact. The nature and extent of contact involved in this scenario must also be understood in relation to the pastoral nomadic lifestyle of the societies in question.

In addition to the lexicon, previous work has also noted structural parallels between the past tense systems of Khalkha Mongolian and CA Turkic languages (Brosig 2014, Washington 2023). While these grammatical similarities have been observed in passing, they have not yet been subjected to systematic cross-linguistic analysis. The present study addresses this gap by providing the first systematic investigation of the morphological and functional parallels in these past tense systems.

2.2. KEY ANALYTICAL CATEGORIES: PROXIMITY AND CONFIRMATIVITY. To organize our discussion of the past tense systems, we adopt two key categories building on previous research on the past tense systems in Mongolic and Turkic languages. The first is *proximity* (borrowing the terminology from Binnick 2012), where proximal (PROX) describes a past event close to the utterance time. The proximal category overlaps with categories described in the Turkic and Mongolic literature as ‘immediate past’ (Hangin 1968, 1976), ‘recent past’ (e.g., Kazakh *жедел өткен шақ*; Mamanov 2014), or ‘time just passed’ (Mongolian *саяхан өнгөрсөн цаг*; Beffa and Hayamon 1975). Example (1a) is uttered when the speaker “just came”, in a setting such as an airport to which the speaker had just arrived. In comparison, (1b), which is non-proximal or distal (DIST), does not assume such recency (Binnick 2012).

(1a) Proximal past

Би Англиас ирлээ.

Bi Angli-as ir-le.

I England-ABL come-PST.PROX.CNF
'I came from England.'

(1b) Distal/non-proximal past

Би Англи улсаас ирсэн.
Bi Anglʲ uls-as ir-sʲ.

I England country-ABL come-PST.DIST.CNF
'I'm from England' (Binnick 2012, Sanders and Bat-Ireedüi 1995)

The second relevant category is *confirmativity* (e.g., Aronson 1967, Friedman 1977, Straughn 2011, Rybatzki 2003), potentially considered a contrast falling in the area of epistemic modality (although see Straughn 2011: 0.3 for discussion on the difficulties of this terminology). In the current context, we take *confirmative* as signaling the speaker markedly vouching for the truth of the statement. The confirmative category overlaps, but is not completely identical with traditional labels such as 'firsthand', 'eyewitness', 'direct evidence', 'clear/certain/definite past tense' (Kyrgyz *айкын өткөн чак*; Toqtonaliyev et al. 2015). Forms marked as *non-confirmative* attenuate personal vouching by means of reportedness, inference, surprise, or doubt. This term applies to forms otherwise labeled as 'non-firsthand', 'non-eyewitness', 'indirective' (Johanson 2000, 2003), or mirative (see Aikhenvald 2012). Example (2a) may be felicitous in a context where Dulmaa has just drunk *airag*, and the speaker has direct evidence for it. (2b) is uttered when the speaker just realized, and hence did not witness firsthand, that Dulmaa has drunk the *airag*. The marking *-je* in this context encodes recent discovery, where the speaker finds out about a recent event that they did not directly observe, based on non-firsthand evidence. (See also Binnick 2012: 64-65; Kullmann & Tserenpil 2008: 185.)

(2a) Confirmative

Дулмаа айраг уулаа.
Dulma airg uu-la.
Dulmaa airag drink-PST.PROX.CNF²
'Dulmaa drank airag.'

(2b) Non-confirmative

Дулмаа айраг уужээ.
Dulma airg uu-je.
Dulmaa airag drink-PST.PROX.NCNF
'[I guess] Dulmaa drank airag.'

3. Past Tense System Organization. This section overviews Mongolic past tense systems (Section 3.1) and Turkic past tense systems (Section 3.2), and then compares across language families (Section 3.3). The paradigms in this paper are not exhaustive: various periphrastic constructions which predictably modify tense or aspect semantics are omitted.

3.1. MONGOLIC PAST TENSE SYSTEMS. We begin by comparing two Mongolic languages: Middle Mongol and modern Khalkha Mongolian. Middle Mongol is the technical term for the Mongolic language recorded in documents from the 13th to early 15th centuries (the Mongol Empire era). We suggest that this language has a three-way past tense system: the confirmative

² We use the glosses CNF (confirmative) and NCNF (non-confirmative) as descriptive labels, recognizing that the semantics of the suffixes in (2) are far more complex than the CNF/NCNF glosses suggest. A full analysis of their evidential, tense, and aspectual properties is, however, beyond the scope of this paper. We leave this to future work.

events not directly witnessed but still understood with certainty (e.g., speaker inferred from seeing the result of the event). *-GAN ikän*, tentatively labeled as mirative, encodes events not witnessed and newly learned, often accompanied by surprise or unexpectedness. This is a type of non-confirmative in our framework.

firsthand	non-firsthand	mirative
-DI <i>eçtem</i> <эчтем>	-GAN <i>eçkänmen</i> <эчкәнмен>	-GAN ikän <i>eçkänmen ikän</i> <эчкәнмен икән>

Table 5. Tatar past tense system. Example 1 SG forms of *eç-* <эч-> ‘drink’.

Despite the apparent innovation in the Tatar system, where *-GAN* presumably has narrowed from non-confirmative to non-firsthand, and *-GAN ikän* was added to handle mirative contexts, we can still see its connection to the Old Turkic system through the basic confirmative vs non-confirmative split.

3.2.2 *CA Turkic past tense systems.* In our analysis of CA Turkic languages, we identify a key divergence in the organization of past tense systems. While non-CA Turkic languages possess past tense systems organized around confirmativity, the systems in Kazakh (Table 6), Kyrgyz (Table 7), and Uzbek (Table 8) incorporate an additional category of proximity, resulting in a four-way system.⁴

	confirmative	non-confirmative
proximal	-DI <i>iştim</i> <iuımım>	-(I)p <i>işipin</i> <iuıınnın>
∅ proximal	-GAN <i>işkenmin</i> <iuıkenмін>	-GAN eken <i>işken ekenmin</i> <iuıken ekenмін>

Table 6. Kazakh past tens/e system. Example 1 SG forms of *iş-* <iuı-> ‘drink’.

	confirmative	non-confirmative
proximal	-DI <i>içtim</i> <ичтим>	-(I)p(tI)r <i>içiptirmin</i> <ичиптирмин>
∅ proximal	-GAN <i>içkenmin</i> <ичкенмин>	-GAN eken <i>içken ekenmin</i> <ичкен экенмин>

Table 7. Kyrgyz past tense system. Example 1 SG forms of *iç-* <ич-> ‘drink’.

	confirmative	non-confirmative
proximal	-di <i>ichdim</i>	-(i)b <i>ichibman</i>
∅ proximal	-gan <i>ichganman</i>	-gan ekan <i>ichgan ekanman</i>

Table 8. Uzbek past tense system. Example 1 SG forms of *ich-* ‘drink’.

⁴ We exclude the imperfect past tense forms in Kazakh (*-EtIn*) and Kyrgyz (*-çU*) for simplicity.

The three CA Turkic languages examined here share the following features: proximal confirmative *-DI*^(kaz, kir), *-di*^(uzb) and proximal non-confirmative suffixes *-(I)p*^(kaz), *-(I)p(tIr)*^(kir), *-(i)b*^(uzb) are suppletive – in terms of morphological forms, they do not derive from one another.⁵ This pattern contrasts with the suffixes in the unmarked proximal category. The non-confirmative suffixes with unmarked proximity *-GAN eken*^(kaz, kir), *-gan ekan*^(uzb) are morphologically built on the confirmative suffixes with unmarked proximity *-GAN*^(kaz, kir), *-gan*^(uzb), by directly adding the forms *eken*^(kaz, kir), *ekan*^(uzb), which are diachronically derived from forms of the copula verb.

3.3. COMPARING PAST TENSE ORGANIZATION ACROSS TURKIC AND MONGOLIC. The development of a four-way past tense system appears to be an areal feature connecting CA Turkic and Khalkha Mongolian, setting them apart from their respective predecessors (Old Turkic, Middle Mongol) and other relatives (e.g., Turkish, Tatar). While potential parallels with CA Turkic were previously noted in research on Mongolic languages (Brosig 2014), our current analysis provides a more comprehensive cross-linguistic comparison that explicitly identifies points of convergence and divergence across systems.

First, we suggest that both Khalkha and CA Turkic build their four-way past tense systems around confirmativity and proximity.

Second, both Khalkha and CA Turkic manifest parallel morphological strategies. In Khalkha, proximal confirmative *-IA* and proximal non-confirmative *-je* forms are suppletive. Suppletion in the same categories are found in CA Turkic: proximal confirmative *-DI*^(kaz, kir), *-di*^(uzb) and proximal non-confirmative suffixes *-(I)p*^(kaz), *-(I)p(tIr)*^(kir), *-(i)b*^(uzb) are suppletive. In addition, in Khalkha, the non-confirmative suffix with unmarked proximity *-sŋ yum bain* is morphologically based on its confirmative counterpart *-sŋ*. Similarly, in CA Turkic, the non-confirmative suffixes with unmarked proximity *-GAN eken*^(kaz, kir), *-gan ekan*^(uzb) are morphologically built on the confirmative suffixes with unmarked proximity *-GAN*^(kaz, kir), *-gan*^(uzb).

Finally, the confirmative forms with unmarked proximity in all these languages, *-sŋ*^(khk), *-GAN*^(kaz, kir), and *-gan*^(uzb), appear to be diachronically derived from a construction involving participles in the predicates of copular clauses. Synchronically, in modern CA Turkic and Mongolic languages, these morphemes are commonly used to form verbal nouns or verbal adjectives (Washington et al. 2022), i.e., they appear in nominalized embedded clauses or relative clauses, respectively. In some languages their use as participle-forming morphemes is argued to instantiate an Asp head in syntax (Uzbek, Gribanova 2018; Kyrgyz, Laszakovits 2018; Khalkha Mongolian, Gong 2022); to encode non-finiteness (Kazakh, Ótött-Kovács 2020); or to be potentially analyzable as Asp combined with “defective” T (Kazakh, Eszter Ótött-Kovács p.c.). The participial—and possibly historical—reading of the modern finite forms may be something akin to “X is one who Y-ed”, e.g., *qımız içkenmin* <кымыз ичкенмин>^(kir) ‘I drank / have drunk qımız’ (per Table 7) may come from a construction meaning ‘I am one who has drunk qımız’;⁶ see Kontovas (to appear) for further analysis of the diachrony of this construction.

⁵ The latter set of forms is known to derive from the auxiliary construction *-(I)p tur-*, which is directly attested in earlier CA Turkic varieties (Chaghatay). It must be noted that these forms are also attested in Ottoman, the predecessor to Turkish, and a cognate form *-(y)Ib(-dIr)* is used in closely related Azerbaijani, suggesting that the form was lost in Modern Turkish. For discussion of medieval variants, see Kontovas (to appear).

⁶ In modern Kyrgyz, *qımız içken kişimin* <кымыз ичкен кишимин> ‘qımız drink-PTCP person-COP.1SG’, with a clear relative clause with an overt head, all part of the predicate of a copula construction, has a different reading: ‘I am a person who drinks qımız’ (and not necessarily ‘drank’). Elision of the nominal head results in the finite past-tense reading, i.e., *qımız içkenmin* <кымыз ичкенмин> ‘qımız drink-PST.DIST.1SG’, glossed ‘I have drunk qımız’. The difference may be due to some shift in the time semantics of *-GAN* participles since the finite construction arose. In

These features are unique to CA Turkic and Khalkha, in contrast to the systems in related languages such as Turkish.

4. Past Tense Negation Strategies. The structural parallels between Khalkha and CA Turkic extend to the negation strategies in their past tense systems. Both Khalkha and CA Turkic employ negation strategies that contrast sharply with the morphotactically straightforward processes found in non-CA Turkic and Middle Mongol (Section 4.1). This section compares Khalkha (Section 4.2) and CA Turkic (Section 4.3) to these other varieties and then discusses the parallels between Khalkha and CA Turkic past-tense negation strategies (Section 4.4).

4.1 OVERVIEW: PAST TENSE NEGATION IN NON-CA TURKIC AND MIDDLE MONGOL. In non-CA Turkic languages (e.g., Old Turkic, Turkish, Tatar) and Middle Mongol, the negation strategies are morphologically consistent across past tenses. In non-CA Turkic languages, the negated form is inflected by directly adding a negation marker *-mA* to the verbal complex, leaving the affirmative verbal morphology intact (3-5):

- | | | | |
|--------|--|-------------------|--------------|
| (3) a. | <i>iç-ti-m</i>
drink-PST-1SG | ‘I drank’ | [Old Turkic] |
| b. | <i>iç-mä-di-m</i>
drink-NEG-PST-1SG | ‘I did not drink’ | |
| (4) a. | <i>iç-ti-m</i>
drink-PST-1SG | ‘I drank’ | [Turkish] |
| b. | <i>iç-me-di-m</i>
drink-NEG-PST-1SG | ‘I did not drink’ | |
| (5) a. | <i>eç-te-m</i>
drink-PST-1SG | ‘I drank’ | [Tatar] |
| b. | <i>eç-mä-de-m</i>
drink-NEG-PST-1SG | ‘I did not drink’ | |

In Middle Mongol (6), the negative marker is realized as a pre-verbal particle. Similar to non-CA Turkic, the negative marker is also directly added to the affirmative verbal complex.

- | | | | |
|--------|---------------------------------------|-----------------|-----------------|
| (6) a. | <i>uuyu-luya</i>
drink-PST | ‘drank’ | [Middle Mongol] |
| b. | <i>ese uuyu-luya</i>
NEG drink-PST | ‘did not drink’ | |

In each of these cases, the negated past tense is an additive construction, with clear morphological parallelism between affirmative and negated forms. This provides a baseline against which the distinct strategies of Khalkha and CA Turkic can be compared.

4.2 PAST TENSE NEGATION STRATEGIES IN KHALKHA VS MIDDLE MONGOL. In contrast to the morphotactically straightforward negation of its 13th-century predecessor, modern Khalkha Mongolian developed a distinct strategy involving suppletion and morphological restructuring. Instead of adding the negator directly to the affirmative verbal complex, Khalkha employs

Turkish, where cognate *-(y)An* only has participial uses and not finite uses, the contrastive pair *kımız içen kişiyim* ‘I am a person who has drunk kımız’ with an overt head and *kımız içenim* ‘I am one who has drunk kımız’ with an elided head demonstrate the structure that the CA Turkic finite forms may have arisen from.

CA Turkic languages such as Kyrgyz and Kazakh diverge significantly from the above pattern. Like Khalkha Mongolian, their negative past-tense forms are diachronically built using negators—in this case *joq* and *emes*—affixed to participles, instead of with a verbal negator *-mA* that appears between the verb stem and further tense and aspect inflection. The Kazakh and Kyrgyz paradigms also show patterns of suppletion which mirror those in Khalkha Mongolian. For example, the negated form of proximal confirmative *-DI* in Kazakh and Kyrgyz is *-GAn joq* (Tables 14-15), diachronically the existential negation of a perfect participle; cf. Mongolian *-sŋ-güi*, which is morphologically analogous. Remarkably, Kazakh and Kyrgyz retain the equivalent of Old Turkic *-mA* in the non-confirmative proximal, but otherwise, they rely diachronically on the negation of participles.

		confirmative	non-confirmative
proximal	affirmative	-DI <i>iŋtim</i> ⟨iʉmim⟩	-(I)p <i>iŋippin</i> ⟨iʉinpin⟩
	negative	-GAn joq <i>iŋken joqpin</i> ⟨iʉken ʒoqpin⟩	-MA-p <i>iŋreppin</i> ⟨iʉnepin⟩
∅ proximal	affirmative	-GAn <i>iŋkenmin</i> ⟨iʉkenmin⟩	-GAn eken <i>iŋken ekenmin</i> ⟨iʉken ekenmin⟩
	negative	-GAn emes <i>iŋken emespin</i> ⟨iʉken emespin⟩	-GAn emes eken <i>iŋken emes ekenmin</i> ⟨iʉken emes ekenmin⟩

Table 15. Kazakh past tense affirmative vs negative. Example 1 SG forms of *iŋ-* ⟨iʉ-⟩ ‘drink’.

4.4 COMPARING PAST TENSE NEGATION STRATEGIES ACROSS TURKIC AND MONGOLIC.

The cross-linguistic comparison in Sections 4.1-4.3 reveals a significant typological split in past tense negation strategies, between CA Turkic and Khalkha on one hand, and non-CA Turkic and Middle Mongol on the other hand.

Non-CA Turkic and Middle Mongol both employ single-strategy negation systems where a negation morpheme is transparently added to the finite verbal complex with otherwise affirmative morphology. In contrast, CA Turkic and Khalkha have developed innovative multi-strategy systems. These languages primarily use diachronically non-verbal negation markers (i.e., *-güi* in Khalkha, *joq* and *emes* in CA Turkic), combined with suppletive uses of diachronically nominalized verbal adjective forms.

We identify and elaborate on three core areas of convergence. First, both Khalkha and CA Turkic systems are characterized by suppletion. The forms of the negated past tense forms are not simple expansions of their affirmative counterparts. For instance, the affirmative proximal confirmative in Khalkha is *-IA*, yet its negated form is *-sŋ-güi*. Similarly, Kyrgyz uses *-DI* as its affirmative proximal confirmative but forms the negative as *-GAn joq*.

Second, this suppletion is not random but systematic: in both Khalkha and CA Turkic, the suppletive negative forms for the proximal confirmative are built upon the proximity-unmarked (∅proximal) confirmative base. In Khalkha, the suppletive verbal morphology in the negative form *-sŋ-güi* utilizes the proximity-unmarked confirmative *-sŋ*. In parallel, the Kyrgyz and Kazakh suppletive verbal suffix in the negative form *-GAn joq* is derived from the proximity-unmarked confirmative *-GAn*. The emergence of the exact same derivational strategy

across two language families is unlikely to be coincidental, especially ones geographically proximal to one another and known to be in contact through loanwords and history.

Third, the innovative negation strategies are accompanied by a shift in morpheme order and type. In both CA Turkic and Khalkha, the most canonical negation strategy involves a diachronically non-verbal negation particle (*joq* ‘absent’, *emes* ‘not’ in CA Turkic; *ügiü* ‘absent’ in Khalkha) that follows the tense or aspect morpheme. This represents a significant departure from their respective ancestral patterns, where negation is canonically marked either by the verbal suffix *-mA* (non-CA Turkic) linearly preceding tense and aspect morphology, or by a pre-verbal particle *ese* (Middle Mongol).

5. Discussion: Balanced Contact as a Source of Parallels. Our investigation reveals a series of structural parallels between the past tense systems of CA Turkic and Khalkha Mongolian. In addition to the shared four-way organization based on confirmativity and proximity, these languages also exhibit common morphological strategies including suppletion in proximal confirmative and proximal non-confirmative forms, suppletion in negated past tense forms, usage of diachronically non-verbal negators as the canonical negation strategy, and distinct morpheme ordering in negated past tense forms.

Crucially, this constellation of features is absent in the historical predecessors of these languages (Old Turkic, Middle Mongol) and is not attested in other modern members of their respective families (e.g., non-CA Turkic; other Mongolic languages like Dagur, Enkebatu 1988) or in neighboring Tungusic languages (e.g., Evenki, Nedjalkov 1997; Manchu, von Möllendorff 1892, Gorelova 2002; Solon, Tsumagari 2009). Preliminary investigations suggest that such features are also absent in languages of other families of the region, such as Iranian, but a complete survey—perhaps with an eye towards Tibetic—would be needed to definitively rule out a third-family source.

We propose that these parallels arose from a period of intense, sustained language contact between the predecessors of modern CA Turkic and Khalkha speakers. The specific nature of the results of convergence suggests a scenario of balanced contact, where bilingual speakers, faced with a paradigmatic mismatch between their languages’ negation systems, innovated a novel solution. The literature on language contact describes an asymmetry of transfer, depending on which of the source or target of transfer is the primary language of speakers (van Coetsem, 1988). This relies on the different cognitive systems employed in the acquisition of L1 and L2 languages (Lucas 2012), as stated by the Fundamental Difference Hypothesis (Bley-Vroman 1990, 2009). In contrast, when speakers acquire multiple L1s in a stable bilingual context, this allows for syntactic convergence (Louden 1992; Lucas 2012). The Turkic languages lacked a pre-verbal negation particle analogous to the one in Mongolic, while Mongolic lacked the suffixal verbal negation characteristic of Turkic. This structural gap was likely bridged by leveraging a construction available to both: the use of participles as predicates. This convergence in a sustained bilingual context is predicted by the Complex Adaptive System Principles model (Filipović & Hawkins 2019), which posits *inter alia* that bilingual L1 acquisition will seek to maximize common ground; constructions shared by both L1 grammars will be used more frequently in both. We hence propose that the suppletive past paradigms of CA Turkic and Khalkha developed from shared paraphrastic constructions built on participles, due to the syntactic incompatibility of pre-verbal analytic negation in Middle Mongol and post-verb-stem agglutinative negation in Old Turkic.

There was some use of predicate negation with verbal participles in Middle Mongol (Brosig 2014) and Old Turkic (Erdal 2004, pp 204, 297). We argue that in the context of balanced

contact, this shared, secondary pattern of negation was preferred over both primary yet incompatible systems. In a bilingual context, this shared syntactic strategy would have provided a foundation for adopting the participle plus existential negator expression of negated past tense as canonical, eventually sidelining the original negation and past-tense paradigms. Over time, this led to the supplanting of the original, divergent paradigms and the emergence of the remarkably similar, innovative systems we observe today.

This does not mean that other shared features of past tense systems did not arise through borrowing. For example, the apparent early presence in Turkic of the form that gave rise to CA Turkic non-confirmative proximal forms (fn. 5, Kontovas to appear) may suggest that this part of the paradigm was a Turkic innovation that the predecessor of Khalkha adopted. However, since the morphological form and in this case strategy were not borrowed as well, it is hard to be sure. We leave a number of issues for future work. First, we see our study as paving the way to more robust study of the semantic nuances of the TAME system of each language. Regarding our analysis, we believe it would be strengthened by examining specific trajectories of CA Turkic and Khalkha forms more closely, perhaps by examining the palaeographic record, e.g. various regions and periods of Medieval Eastern Turkic, Chaghatay, and Classical Mongolian. Timing and geography of the contact situation also remain open topics that would benefit from closer examination of the palaeographic record. In addition, it will also be important to determine how the morphology and semantics of less common forms such as Khalkha past *-v* and the Kazakh *-MA-DI* and Kyrgyz *-BA-DI* past negatives might complicate our systematization.

References

- Aikhenvald, Alexandra Y. 2012. The essence of mirativity. *Linguistic typology*, 16(3), 435-485.
- Aronson, Howard I. 1967. The grammatical categories of the indicative in the contemporary Bulgarian literary language. *To Honor Roman Jakobson*, 1(1).
- Beffa, Marie-Lise & Hamayon, Roberte. 1975. *Éléments de grammaire mongole*. [Elements of Mongolian Grammar.] Dunod.
- Binnick, Robert. I. 2012. The past tenses of the Mongolian verb: Meaning and use (Vol. 1). Brill.
- Bley-Vroman, Robert. 1990. Linguistic Analysis. *Linguistic Analysis*, 20(1-2), 2-49.
- Bley-Vroman, Robert. 2009. The Evolving Context of the Fundamental Difference Hypothesis. *Studies in Second Language Acquisition*, 31(2), 175-198.
- Brosig, Benjamin. 2014. The aspect-evidentiality system of Middle Mongol. *Ural-Altaic Studies*, 13(2), 7-38.
- Clark, Larry V. 1977. Mongol Elements in Old Turkic? *Suomalais-ugrilaisen Seuran aikakauskirja* (Helsinki), 110-168.
- Clauson, Gerard. 1959. The Earliest Turkish Loan Words in Mongolian. *Central Asiatic Journal* 4, no. 3:174-187.
- Clauson, Gerard. 1960. The Turkish Elements in 14th Century Mongolian. *Central Asiatic Journal* 5, no. 4:301-316.
- van Coetsem, Frans. 1988. Loan phonology and the two transfer types in language contact. Foris Publications.
- Enkebatu. 1988. 达斡尔语和蒙古语. [Dagur and Mongolian.] 呼和浩特: 内蒙古人民出版社.
- Erdal, Marcel. 2004. *A grammar of Old Turkic* (Vol. 3). Brill.
- Friedman, Victor A. 1977. *The Grammatical Categories of the Macedonian Indicative*. Columbus: Slavica.
- Gong, Zhiyu Mia. 2022. *Issues in the Syntax of Movement: Cross-Clausal Dependencies, Reconstruction, and Movement Typology*. PhD dissertation. Ithaca, NY: Cornell

- University.
- Gorelova, Liliya M. 2002. *Manchu Grammar*. Leiden: Brill.
- Gribanova, Vera. 2018. “Case, agreement and differential subject marking across Uzbek nonfinite clause types”. Talk presented at the 3rd Conference on Central Asian Languages and Linguistics, Indiana University, Bloomington. Abstract available at <https://hdl.handle.net/2022/24637>.
- Gülensoy, Tuncer. 1974. Eski ve orta Türkçede Moğolca kelimeler ve Moğolca-Türkçe müşterek kelimeler üzerine notlar. [Notes on Mongolic words in Old and Middle Turkic and words common to Mongolic and Turkic.] *Türkoloji Dergisi* 6(1). Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi, Türk Dili ve Edebiyatı Bölümü. https://doi.org/10.1501/Trkol_0000000061.
- Hangin, John. 1968. *Basic Course in Mongolian*. Indiana University.
- Hangin, John. 1976. *Intermediate Mongolian: a textbook for modern Mongolian*. Indiana University.
- Johanson, Lars. 2000. Turkish indirectives. In L. Johanson & B. Utas (Eds.), *Evidentials: Turkic, Iranian and neighbouring languages* (pp. 61–88). Mouton de Gruyter.
- Johanson, Lars. 2003. Evidentiality in Turkic. In Aikhenvald and Dixon (Eds.), *Studies in Evidentiality: 273-290*.
- Kontovas, Nicholas. To appear. “So, too, shall this time pass without return”: Contact, prestige, and the evolution of verbal meaning in Medieval Eastern Turkic (1000-1450 CE). Ph.D. dissertation, Universiteit Leiden.
- Kuhl, Michael, and Werner Sasse (eds). 1992. Mongolica im Altürkischen. [Mongolica in Old Turkic.] In *Bruno Lewin zu Ehren— Festschrift aus Anlaß seines 65. Geburtstages, Band III: Korea. Koreanistische und andere asienwissenschaftliche Beiträge*, 14:39–56. Bochum: Universitätsverlag Dr. N. Brockmeyer.
- Kullman, Rita and Tserenpil, Dandii-Yadam. 2008. *Mongolian Grammar* (4th ed.) Admon.
- Laszakovits, Sabine. 2018. On possessed relative clauses in Kyrgyz. In *Proceedings of the 14th Workshop on Altaic Formal Linguistics (WAFLL14): MITWPL*. Vol. 90, 157-168.
- Ligeti, Lajos. “Mongolos jövevényyszavaink kérdése.” [On the question of our Mongolic loanwords.] *Nyelvtudományi Közlemények XLIX* (1935): 190–271
- Louden, Mark. 1992. Old Order Amish Verbal Behavior as a Reflection of Cultural Convergence. In K. Burrige (Ed.), *Diachronic studies on the languages of the anabaptists* (pp. 264–278). Univ.-Verl. Brockmeyer.
- Lucas, Christopher. 2012. Contact-induced grammatical change: Towards an explicit account. *Diachronica*, 29(3), 275–300.
- Маманов, Ыбрайым Есенқұлұлы. 2014. *Қазақ тіл білімінің мәселелері*. [Issues of Kazakh linguistics.] Алматы: Абзал-ай.
- von Möllendorff, Paul Georg. 1892. *A Manchu Grammar with Analysed Texts*. Shanghai: American Presbyterian Mission.
- Nedjalkov, Igor. 1997. *Evenki*. Routledge.
- Ótrott-Kovács, Eszter. 2020. Restrictions on genitive subjects in Kazakh relative clauses. In *Proceedings of the Workshop on Turkic and Languages in Contact with Turkic 5*. 110–124. <https://doi.org/10.3765/ptu.v5i1.4786>
- Poppe, Nicholas. 1955. The Turkic Loan Words in Middle Mongolian. *Central Asiatic Journal* 1, no. 1: 36–42.
- Rybatzki, Volker. 2003. Middle Mongol, in Juha Janhunen (ed.) *The Mongolic Languages*.

- Rybatzki, Volker. 2011. Classification of Old Turkic Loanwords in Mongolic. *Ötüken'den İstanbul'a Türkçenin 1290 Yılı (720–2010)*: Bildiriler, 2011, 185–202.
- Sanders, Alan J. K. and Jantsangiin Bat-Ireedüi. 1995. *Mongolian Phrasebook*. Hawthorn, Australia: Lonely Planet
- Schönig, Claus. 2000. Mongolische Lehnwörter im Westoghusischen. [Mongolic loanwords in West Oghuz.] *Turcologica* 47. Wiesbaden: Harrassowitz, 2000.
- Schönig, Claus. 2003. Turko-Mongolic relations. In J. Janhunen (ed.) *The Mongolic Languages* (pp. 403-419).
- Щербак, Александр Михайлович. 1986. “Тюркско-монгольские языковые связи: К проблеме взаимодействия и смешения языков”. [Turko-Mongolic linguistic connections: On the problem of interaction and mixing of languages.] *Вопросы языкознания* 4.
- Щербак, Александр Михайлович. 1997. *Ранние тюркско-могольские языковые связи (VIII–XIV вв.)*. [Early Turko-Mongolic linguistic connections (8th-9th centuries).] Санкт-Петербург: ИЛИ РАН.
- Щербак, Александр Михайлович. 2005. *Тюркско-монгольские языковые контакты в истории монгольских языков*. [Turko-Mongolic linguistic contacts in the history of Mongolic languages.] Санкт-Петербург: Наука.
- Straughn, Christopher. 2011. Evidentiality in Uzbek and Kazakh. Ph.D. dissertation, University of Chicago.
- Токтоналиев, К.Т. et al. (eds.) 2015. *Кыргыз тилинин жазма грамматикасы: азыркы кыргыз адабий тили*. [A grammar of written Kyrgyz: the modern Kyrgyz literary language.] Бишкек: Аврасия.
- Tsumagari, Toshiro. 2009. A sketch of Solon grammar. *Journal of the Center for Northern Humanities* 2: 1-21.
- Tuna, Osman Nedim. 1972. “Osmanlıca Moğolca ödünç kelimeler.” [Mongolian loanwords in Ottoman.] *Türkiyat Mecmuası* (İstanbul) 17: 209–250.
- Tuna, Osman Nedim. 1976. “Osmanlıcada Moğolca kelimeler.” [Mongolian words in Ottoman.] *Türkiyat Mecmuası* (İstanbul) 18: 281– 314.
- Washington, Jonathan. N. 2023. What Can We Learn From the Mongolic Material in Kazakh and Kyrgyz? In *Heritage and Identity in the Turkic World: Contemporary Scholarship in Memory of Ilse Laude-Cirtauas (1926–2019)*, 33, 217.
- Washington, Jonathan N., Francis M. Tyers, and Ilnar Salimzianov. 2022. Non-finite verb forms in Turkic exhibit syncretism, not multifunctionality. *Folia Linguistica* 56(3), 693-742. <https://doi.org/10.1515/flin-2022-2045>.