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Recent Contact-Induced Morphosyntactic Changes in the Lower Kolyma Region

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Abstract

The paper deals with recent contact-induced changes in the grammar of two languages of the Lower Kolyma tundra, Tundra Yukaghir (TY) and Lower Kolyma Even (LKE). The morphosyntax of these languages has undergone a rather strong influence from Sakha in the course of the 20th century. The investigation focusses on the structural copying of Sakha patterns into TY and LKE, which resulted in the emergence of several new categories, in particular, the future imperative, the necessitive based on the future participle with or without proprietive marking, evaluative morphology, and contrastive markers deriving from the converbs of the copula verb. In addition, the TY system of differential object marking has changed under the influence of Sakha. These phenomena are interpreted against their historical and sociolinguistic settings, specifically, the types of multilingual situations in the region. The ramifications of the findings for the theory of language contact are also discussed.

1   Introduction

The indigenous languages of the Republic of Sakha (Yakutia), the Yukaghir
languages (Tundra and Kolyma Yukaghir), the northern Tungusic languages
(Evenki and Even) and Sakha (Turkic), have been in close contact for cen-
turies. They display a remarkable number of subtle grammatical parallels and
common grammaticalization paths, some of which are well known from pre-
vious literature (see, in particular, Pakendorf, 2007; Ackerman and Nikolaeva,
2013; Nikolaeva, 2020), whereas other still await thorough investigation.[1] In
any instance, it is clear that they instantiate areal patterns and are likely to
result from language contact. In most cases we are dealing with the transfers
of grammatical categories or syntactic constructions from northern Tungusic
to other languages of the area with further structural or functional rearrange-
ments of their own inherited grammatical material. Some of these features are
also shared by the northern Samoyedic languages, which used to be in contact
with northern Tungusic.

When the Tungusic population spread to the north, it came into close con-
tact with the autochthonous ancestors of modern Yukaghirs and, later, mod-
ern Sakha, who first settled in northern Siberia in the areas where Evenki was
widespread (Pakendorf, 2007: 51). The Tungusic expansion took place in several
waves starting from ca. AD 1000 and reached the Arctic ocean by the 17th cen-
tury (Robbeets and Oskolskaya, 2022: 280). Thus, the features mentioned above
are relatively old and for the most part they are characteristic of all varieties of
the relevant languages. For instance, the loss of the genitive in standard posses-
sive constructions is typical of all Sakha dialects; the double subject marking

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1   These features appear in various combinations in the relevant languages and include (a) the
    reduction in functions or the loss of the genitive case, (b) the double marking of the depen-
    dent subject in participial relative clauses, (c) the ablative or partitive case marking on imper-
    ative objects, (d) the use of the attributive proprietive forms in the coordinating function, (e)
    the spreading of the 1st person hortative marking to the full paradigm, (f) the grammatical-
    ization of the prohibitive from the mood of future possibility, (g) the instrumental case on
    the modifiers to the proprietive base, (h) the non-attributive possessive/pertensive/associa-
    tive forms of nouns, and (i) the double object construction in which the two objects stand in
    an inalienable possessive relation.

in relative clauses occurs in both living Yukaghir languages, Kolyma Yukaghir (KY) and Tundra Yukaghir (TY), and so on.

In addition, there are more recent changes that are restricted to particular regions. In this paper, we focus on the Lower Kolyma tundra in north-eastern Yakutia. This is one of the ethnically most complex areas in the Sub-Arctic zone, where the local population has been largely multilingual in TY, Lower Kolyma Even (LKE), Chukchi, and later in Russian and the local variety of Sakha (for more information on the region and the map, see Pupynina and Aralova, 2021; Matić, this volume; Pupynina and Vakhtin, this volume). Not surprisingly, some novel features of the relevant languages emerged as a result of linguistic convergence and multilingual surroundings in which they are spoken.

The topic of this paper is recent changes in two critically endangered languages that are only spoken in the Lower Kolyma area, TY and LKE. Arguably, they occurred in the past 100 years or so – or at least there is no evidence of them at the earlier historical stages of these languages and no comparable phenomena in related linguistic varieties. Such changes can be observed at all linguistic levels (see Kurilova, 2020 on the lexicon and phonology), but in this paper we will only concentrate on morphosyntax, since this topic has never been studied before. We will show that they result from the contact influence of Sakha, the language that became sociolinguistically dominant in the Lower Kolyma tundra in the course of the 20th century.

The identification of contact-induced phenomena must take into account the issue of variability vs. change (Muysken, 2000; Matras, 2009; Poplack and Levey, 2010). The reason is that some innovations may be due to spontaneous code-switching that occurs 'on-line' in the process of conversational exchange. Our field data collected in the Lower Kolyma area document numerous examples of what seems to be ad hoc creations by the speakers, for instance, a kind of word-internal code-switching. One example from our TY conversational corpus is *mə=qatara:-tə-n* 'he will go astray', where *mə=* is a TY preverbal clitic, *χatara:-* is the Sakha word for 'stray', *-tə-* is the TY future suffix, and *-n* is the Even 3rd person singular subject agreement morpheme. This kind of mixture of three languages within one word is rare, but the combinations of a root from one language and a suffix from another are frequent, as shown by the following small-scale statistics: in a TY conversation of a total of 1277 words, there are 14 words with a TY root and an LKE suffix, 5 LKE roots with a TY suffix, 42 words with a Sakha root and a TY suffix, 15 words with the TY root and a Sakha suffix, and 2 instances of a Sakha root with a LKE suffix. It remains unclear what factors determine this kind of morphological mixing and how systematic it is, as the exact corollaries of mixed forms also occur in their non-mixed disguise: for instance, the meaning 'little foot' can be rendered in TY both as

ugurčə-čəka:n [foot.TY-DIM.EVN], with the LKE diminutive suffix, and *ugurčə-de:* [foot.TY-DIM.TY], with the native TY diminutive suffix.

However interesting, such variability is not the focus of this paper. We will only address the structures that are firmly conventionalized, result from clearly defined diachronic processes and have changed some aspects of the grammar of TY and LKE. The ultimate aim is to determine what shaped the grammatical structure of these languages in its present form and to estimate the role of language contact in this.

A study on such topics requires comparison over time, i.e., research into the recent history of the target languages. Methodologically, it must rely on available historical records and comparative materials from the same or closely related linguistic varieties recorded in the regions in which there is no comparable contact situation. Our data therefore come from a variety of sources.

The TY materials reflect three historical stages of the language, which we conventionally refer to as follows: (i) Early TY, (ii) Middle TY, and (iii) Modern TY. Our Early and Middle TY data come from the published texts, supplemented by grammatical and lexical descriptions. Modern TY is documented in the unpublished collection of texts recorded by Cecilia Odé between 2004 and 2014 and Dejan Matić between 2009 and 2013. We took into account only those texts in the collection that have already been annotated. In addition, we have been conducting regular elicitation sessions with native speakers of Modern TY (2010 to present, in person and online). More information about TY materials we used is presented in Table 1.

We also will rely on comparative evidence from KY (corpus of ca. 20,000 words from Nikolaeva, 2004) and on our own KY fielddata.

Our LKE data come from the field materials collected by Dejan Matić between 2010 and 2013 and Maria Pupynina in 2022, as well as the texts published by Šarina and Kuz'mina (2018) and the unpublished recordings that these two authors kindly put at our disposal. The size of the textual corpus that we use in this paper is about 20,000 words. Matić did some grammatical elicitation on LKE in 2010 and 2012, and we were able to additionally check a number of structures with one native speaker in online elicitation sessions.

Since LKE lacks a historical corpus comparable to that of TY, the comparative study of dialects will play a more important methodological role. It is useful because, when traditional historical methods cannot be applied because of the absence of earlier linguistic records, synchronic inter-dialectal variations can by interpreted as stages in language change. Even has a host of rather strongly divergent dialects, falling roughly into the western, central and eastern groups (Matić, 2020). LKE belongs to the central group according to a number of parameters, and is closest to other central dialects spoken in the western tundra

TABLE 1   Stages of TY

	Speakers' years of birth	Textual corpus	Size of the corpus	Additional sources
Early TY	before 1870	Jochelson, 1900	ca. 2,500 words	Jochelson, 1905 archival materials
Middle TY	ca. 1890–1940	Maslova, 2001 Kurilov, 2005 Kurilov and Odé, 2012	ca. 37,000 words	Krejnovič, 1958, 1982 Maslova, 2003a Kurilov, 2001, 2006
Modern TY	ca. 1940–	field data	ca. 30,000 words	ca. 100 hours of grammatical and lexical elicitation

(the Tundra dialect) and along the river Indigirka (the Indigirka-Aldan dialect). However, it also displays similarities with the western and eastern groups. For comparison with LKE, we use the collections of texts in the Indigirka-Aldan dialect (ca. 60,000 words), the Arka-Lower Maya dialect (ca. 60,000 words), the Kamchatka dialect (ca. 40,000 words) and Middle Kolyma Even (ca. 50,000 words), recorded by Matić between 2007 and 2011 and taken from different published sources (see Matić, 2020, for a full list). We also consulted some published materials on other dialects (Novikova, 1960, 1980; Sotavalta and Halén, 1978; Lebedev, 1978, 1982; Dutkin, 1995; Dutkin and Beljanskaja, 2009; Pakendorf, 2009, 2017, 2019; Pakendorf and Aralova, 2020).

As for Sakha, we do not have a corpus reflecting the language spoken in the Lower Kolyma area and cannot estimate to what extent it differs from the literary variety, which developed in the Taatta district of central Yakutia. Instead, we rely on the literary Sakha as a useful *tertium comparationis*; in the absence of evidence to the contrary, we assume that it is not different from the Lower Kolyma Sakha in the relevant respects. Since Sakha is a widely spoken and well-studied language, data are cited after existing descriptions and dictionaries, and we were also able to conduct a number of internet searches to check some of the information from the literature. In addition, some sentences and semantic judgments were elicited from a speaker of Sakha from the Lower Kolyma region.

For all languages, elicited examples are cited without indicating their source. Examples that come from the narrative texts collected in the field are referred to with the tags consisting of the abbreviation of the language (TY, LKE, or Even for other dialects) and the year of the recording. Some of these recordings are being gradually made publicly available in an open-access online resource

TABLE 2   Transcription conventions

Consonants		Vowels	
IPA	Our transcription	IPA	Our transcription
ʧ	č	ø/œ	ö
dʑ	d'	y	ü
ʒ	ž	ɯ	ï
ɲ	ń	ɛ/e	e
ʎ	l'		

https://siberianlanguages.surrey.ac.uk/. Examples that come from published sources are referenced in a standard manner.

The transcriptional conventions that diverge from IPA employed throughout the paper for all languages are presented in Table 2.

In the representation of Sakha and Even grammatical morphemes, capitalized *A* stands for a harmonizing non-high vowel, and *I* stands for a harmonizing high vowel. For Sakha, *L* and *T* are consonants that assimilate to the preceding consonant. Bound words and clitics are separated from their hosts by the tilde and the equals sign, respectively. When citing data from the published sources, we have adapted the transcription of the sources to our conventions and have partly modified the glosses. Substance borrowings are indicated in the glosses using the following language tags: TY for Tundra Yukaghir, SA for Sakha, EVN for Even and R for Russian.

Sections 2 to 6 will discuss five case studies that illustrate recent contact-induced changes in TY and LKE morphosyntax. In the concluding Section 7 we will interpret our results against their sociolinguistic background.

2   Future Imperative

Some authors working on Siberian languages and beyond maintain that the core meaning of the imperatives is speech causation irrespective of who is the performer of the prescribed action, i.e., the imperative subject can be of any grammatical person (see a survey in Pakendorf, 2007). In contrast, we take canonical imperatives to be restricted to 2nd person. There are various formal and semantic reasons for this kind of analysis at least for the languages in question, if not cross-linguistically. The relevant languages tend to grammaticalize

clause type distinctions between imperatives, on the one hand, and some kind of hortatives/jussives/subjunctives, on the other hand. Unlike the latter, true 2nd person imperatives are not syntactically embeddable and often have a different morphological structure (for instance, for Yukaghir see Nikolaeva, 2005). In what follows we will only discuss the verbal forms compatible with the 2nd person subject.

Future imperatives historically based on converbs are found in a number of languages of north-eastern Siberia. Pakendorf (2007) argues at great length that they represent an areal feature resulting from the spread of the northern Tungusic pattern. The northern Tungusic languages (Evenki, Even, and Neghidal) exhibit 2nd person future imperatives based historically on the purposive converbs augmented by same-subject (SS) markers,[2] while southern Tungusic languages either lack future imperatives altogether or employ a different form. The northern Tungusic pattern was adopted by several non-Tungusic languages that have been in close contact with Even and Evenki, namely, by Dolgan, Nganasan and Buryat. Sakha future imperatives based on purposive converbs are likely to be the result of northern Tungusic (specifically, Evenki) influence, too (Pakendorf, 2007: 208–241), since there are no directly equivalent forms in other Turkic languages.

The Sakha 2SG future imperative is marked by the suffix *-Aːr*, followed by the plural suffix *-(I)ŋ* in the 2PL. In the scenario proposed by Pakendorf (2007: 240–241), the future imperative in *-Aːr* has grammaticalized from the old Turkic analytical imperative, under the influence of Evenki. The further step was the development of the future imperative in *-Aːr* into the SS purposive converb in *-AːrI*, also following the pattern found in Evenki. At present, *-AːrI* is commonly used to express purpose in complex SS constructions:

(1) [*Ïhïaχ-χa*   *sïld'-aːrï-bïn*]
     summer.celebration-DAT participate-PURP.SS.CVB-POSS.1SG
     dojdula:-tï-m.
     return-PST-POSS.1SG
     'I returned (to my motherland) to participate in the summer celebration.'
     (Ubrjatova, 1982: 249).

The connection between the future imperative *-Aːr* and the converb in *-AːrI* appears justified, but we believe an alternative scenario would be worth considering here: the converb in *-AːrI*, which independently existed in Sakha,

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2   In Even such forms also spread to the 1st and 3rd person.

was reanalyzed as the future imperative in *-A:r*, possibly under the influence of Evenki. The main reason for this kind of analysis is that the converbial form in *-A:rI* has a much broader usage in Sakha, being employed in several non-purposive functions. The label 'purposive' is simply based on the most widespread tradition and we will follow it here, but Xaritonov (1947: 242), for instance, refers to the converb in *-A:rI* simply as 'the future converb'. This converb can head a same-subject adverbial clause with a future time reference or denoting a condition (2a), and expresses accompanying situations simultaneous with the situation of the main clause (2b). In many of its usages, it does not have to index the dependent subject.

(2)   a.   [*Tönn-ö:rü-bün*]   *il-ïa-m.*
            return-PURP.SS.CVB-POSS.1SG   get-FUT-POSS.1SG
            'When/if I return, I'll get it.' (Ubrjatova, 1982: 250)

      b.   [*Kel-e:ri*]   *kör-ön*   *kel-le-bit* [...]
            come-PURP.SS.CVB   see-SS.CVB   come-PST-POSS.1PL
            'While coming (here), we saw ...' (Ubrjatova, 1982: 250)

There are other non-purposive functions, too (for details see Ubrjatova, 1982: 249–250). While it is in principle possible that they developed out of the purposive function through some kind of semantic expansion after the future imperative was reanalyzed as the purposive converb, as per Pakendorf's (2007) analysis, the actual semantic path is difficult to see. We find the opposite grammaticalization scenario 'SS purposive/future converb > future imperative' to be more plausible.

   The mechanism that could cause the grammaticalization of purposive/ future converbs as future imperatives is insubordination (Evans, 2007, and other work). Insubordination, known to be cross-linguistically common in modal, epistemic and evidential constructions, is the conventionalization of formally subordinated structures as main clauses (specifically on imperatives, see Aikhenvald, 2010: 274–280). In this instance, it involves a historical process by which a dependent purposive converb gets reanalysed as independent verb after the ellipsis of the main clause, along the following lines: '(do) Y in order to X' > 'do X (later)'. The following Even examples (from Malchukov, 2001: 167, cited here after Pakendorf, 2007: 240) demonstrate that the formally identical verbs can be employed in the subordinate purpose clauses and as independent future imperatives.

(3) a. *Edu tege-d-li*   [*nokle-de-j*].
      Here sit-PROG-IMP.2SG shoot-PURP.SS.CVB-SS.SG
      'Keep sitting here in order to shoot (afterwards).'

   b. *Nokle-de-j.*
      shoot-FUT.IMP-SS.SG
      'Shoot (afterwards)!'

We maintain that (3a) is the historical source of (3b), both in Tungusic and later in Sakha. Under this scenario, too, the grammaticalization of the Sakha future imperative could be triggered by the distinction between non-future and future imperatives in Evenki, as proposed by Pakendorf (2007), but the direction of change is from the converb to future imperative, not the other way round. The origin of *-A:rI* is a separate issue which we cannot discuss here.

As for Yukaghir, the future vs. non-future imperative opposition only exists in TY; the closely related KY does not differentiate between imperative tenses (see Nikolaeva, 2005). In TY the future imperative is a relatively new form: there are no traces of it in either the Early TY corpus or in Krejnovič (1958, 1982; data from 1930s), although it does feature in Maslova's and Kurilov's materials recorded in the 1950s and 1960s. In principle, it could have resulted from older contacts with northern Tungusic. However, the morphological mark-up of future imperatives characteristic of TY suggests that we may be dealing with a fairly recent copying from Sakha.

The forms in (4) show that the non-future imperative marker is *-k* in both TY and KY, and the TY imperative future is *-t(ə)γənəŋ*. In both cases 2PL is indicated by the verbal plurality marker *-ŋi-* inserted before the imperative suffix.

(4)	2SG	2PL
Imperative	TY, KY *-k*	TY, KY *-ŋi-k*
Future imperative	TY *-t(ə)γənəŋ*	TY *-ŋi-təγənəŋ*

The imperatives express the whole array of regular imperative meanings, commands, wishes, requests, orders and so on. The TY future imperative renders the attenuated command or request, or the one which does not have to be fulfilled immediately, cf. the elicited example (5a), which conveys an order, and (5b) from Kurilov (2001) which our consultant characterised as 'a soft request'.

(5) a. *Ego:jə   met-u-l   tilemə   ma:-ŋi-k.*
         tomorrow 1SG-O-NOM at.same.time wait-PL-IMP
         'Wait for me tomorrow at the same time.'

     b. *Ego:jə   met-u-l   tilemə   ma:-ŋi-təɣənəŋ.*
         tomorrow 1SG-O-NOM at.same.time wait-PL-FUT.IMP
         'Please wait for me tomorrow at the same time.' (Kurilov, 2001: 278)

For this reason, the future imperative is often used together with adverbial
constructions which express either a definite time in the non-near future or
a condition:

(6) [*Petčigijə-ń-d'ə   ile   jö:-rə*]   *meń-təɣənəŋ.*
     reins-PROPR-S.PTCP reindeer see-COND.SS.CVB take-FUT.IMP
     'If you see a reindeer with reins, catch it.' (Kurilov, 2001: 412)

It is fairly obvious that the future imperative *-t(ə)ɣənəŋ* is composed of the
regular future marker *-t(ə)-* and the element *-ɣənəŋ*. The question is then the
origin of *-ɣənəŋ*. According to the only existing analysis (Schmaltz, 2013: 137),
-ɣənəŋ goes back to the 3rd person jussive in *-ɣən*, but this hypothesis cannot
explain either the phonological details (the following *ə* and the final conso-
nant *ŋ*) or the compatibility of *-ɣənəŋ* with the future tense, given that the
future never co-occurs with the jussive. For instance, **kewei-tə-ɣən* [leave-FUT-
JUS.3SG] is strictly ungrammatical. The semantic part of the story and, espe-
cially, the change '3rd person > 2nd person', remains unclear too.

     We propose instead that *-t(ə)-ɣənəŋ* is the future form of a converb (cf.
Nikolaeva, 2020). The converbal system of TY differentiates, among other dis-
tinctions, between conditional and non-conditional converbs. Conditional
different-subject (DS) converbs index the dependent subject as the locutor (1st
or 2nd person) or non-locutor (3rd person). The respective forms in the singu-
lar end in *-l-ɣənə* [1/2-COND.DS.CVB] and *-də-ɣənə* [3-COND.DS.CVB]. The plural
paradigm is largely parallel, but the 1st/2nd person plural form are based on *-
qənə* instead of *-ɣənə* and 3PL additionally hosts the plurality marker *-ŋu-*. As
suggested in the glossing, the actual converbial suffix here is *-ɣənə* (SG) or *-
qənə* (PL), while *-l-* and *-də-* are subject markers indexing the 1st/2nd or 3rd
person subjects, respectively. The pattern of subject indexing mirrors posses-
sor indexing and suggests that, as is cross-linguistically common, the source of
the converbial structure was a possessive construction. Indeed, the DS condi-
tional converb goes back to the possessive forms of productive action nominals
(nominalizations) in *-l*, which are still widely used in TY in various case forms

and syntactic functions. When the possessive construction was reanalyzed as a clausal structure, the possessor was interpreted as the dependent subject. 1st and 2nd person dependent subjects were not indexed by a special inflection, just like 1st and 2nd person possessors, but from a synchronic point of view, the action nominal suffix *-l* can now be analyzed as the 1st/2nd person dependent subject marker. For indexing the 3rd person subject, conditional converbs employ the 3rd person possessive *-də-*. It replaced the action nominal suffix *-l*, as is generally possible in the 3rd person possessive forms of the action nominals in *-l* (for details see Nikolaeva, 2020). For instance, *aːwə-d-i-ń* [sleep-3-O-DAT] is the 3rd person dative of the action nominal *aːwə-l* and goes back to **aːwə-l-d-i-ń* [sleep-NMLZ-3-O-DAT], *aːwə-də-ɣənə* goes back to **aːwə-l-də-ɣənə* [sleep-NMLZ-3-ACC], and so on.

As a general rule, conditional DS converbs do not refer to a specific dependent event in the present or past, but express a realis or irrealis condition, or simply denote a temporal relation in the future. In this sense TY makes no distinction between hypotheses ('if') and future predictions ('when'). The main verb, modified by the converbial clause, is in the realm of irrealis and usually stands in the future, one of the non-indicative moods, or the habitual form.

(7) a. [*Naːdə ŋo-də-ɣənə*]   *aɣan   čamd-iːčə-t.*
         need   be-3-COND.DS.CVB   DP   help-DIR-FUT(TR.1SG)
         'If there is a need, I'll certainly go and help.' (TY2012)

     b. [*Teńi jalmisčəsur* […] *kötkəi-l-ɣənə*]   *čulɣəi-tə-i.*
         here third.time   reach-1/2-COND.DS.CVB   stab-FUT-TR.1PL
         'When you come here for the third time, we will stab you.' (Kurilov, 2005: 199)

Less frequently, the relevant converb has a non-conditional/non-future meaning. It then expresses a dependent progressive situation, where the time of the main clause is included within the time of the dependent clause.

(8) *Ta-ŋ   apta:-nu-də-ɣənə   ma:rqə-n*
     that-ATTR   collect-IPFV-3-COND.DS.CVB   one-GEN
     viləsipe:t-ńə-i   öː-lə-ŋ   kölu-l.
     bicycle.R-PROPR-S.PTCP   child-PRED-CONTR   come-SF
     'While he was collecting (pears), a child with a bicycle came.' (TY2010)

Thus, whereas the TY conditional converb in (*-l/də*)-*ɣənə* does not convey pur-
pose, it has other dependent functions largely similar to the Sakha purposive
converb in *-A:rI*, cf. (7) and (8) with examples (2) above.

The conditional converb does not normally take the future tense in mod-
ern TY, but occasional examples can be found and this was possible in KY, at
least at the stage recorded by Jochelson, e.g., *el'e=a:juji-tə-l-gənə* [NEG=offend-
FUT-1/2-COND.DS.CVB] 'if I/you do not offend' (Jochelson, 1900: 82). The action
nominal in *-l*, on which the converb is based, does in fact productively combine
with the future *-t(ə)-* even in modern TY. The final *-ŋ* is a suffix compatible with
the conditional converb; typically, but not always, it has an individuating or a
contrastive/scalar meaning.

(9) [*Amu-čə~rukun*   *seu-də-ɣənə-ŋ*]   *mit-qənə wa:ji*
     good-S.PTCP~NMLZ enter-3-COND.DS.CVB-CONTR 1PL-ACC also
     mə=waŋdə-ŋu-tə-m
     AFF=deprive-PL-FUT-TR.3SG
     'Even if something good comes, they will deprive us again.' (Kurilov, 2001:
     65)

This suggests that the complex suffix *-t(ə)-ɣənə-ŋ* can be interpreted as the
future form of the conditional converb augmented by the contrastive particle.

We propose that conditional converbs in TY were reanalysed as future imper-
atives, similarly to Sakha purposive converbs. The reanalysis follows the insub-
ordination path roughly represented as follows: 'Y if you do X > (what) if you
do X > do X (later)'. Evans (2007: 380, 389–390) cites the English example (10)
to support this path:

(10) If you could give me a couple of 39c stamps please, (I'd be most grateful).

Similar examples are in fact attested in TY. They instantiate the intermedi-
ate stage of the insubordination process, whereby the main clause was elided
and the interpretation of the subordinate structure was restricted. However, it
has not yet developed a conventionalized main clause usage and has not yet
become a new grammatical category.

(11) a. *Teńi taŋ jalmisčur kelu-l-ɣənə?*
        here DP third.time come-1/2-COND.DS.CVB
        'What if you come here for the third time?'

b. *Teńi   ńumud'ə-l-ɣənə?*
here camp-1/2-COND.DS.CVB
'Shall I set up a camp here?' (Kurilov, 2005: 132)

Once the future form of the converb entered the imperative system of TY, it was analogically adapted to the already existing non-future imperative. Two cases of paradigm levelling are observed. First, there are occasional examples where the negation of the future imperative follows the model typical of the negation of converbs, that is, the future imperative is negated simply by adding the negative proclitic *əl=*, i.e., as *əl=X-t(ə)ɣənəŋ, əl=X-ŋi-t(ə)ɣənəŋ* where X is the verbal stem. Yet, it is much more typical to negate the future imperative with the standard imperative pattern which involves not only the negative proclitic *əl=* but also the special prohibitive suffix *-l'ə-*, inserted before the imperative suffix, i.e., for non-future imperative, *əl=X-l'ə-k, əl=X-l'ə-ŋi-k*. Future imperatives follow the same type of negation i.e., *əl=X-l'ə-təɣənəŋ, əl=X-l'ə-ŋi-təɣənəŋ*, for instance, *əl=aɣariː-l'ə-təɣənəŋ* [NEG=conceal-PROH-FUT.IMP] 'don't conceal' (Kurilov, 2005: 272). Arguably, the future prohibitive forms emerged because of the analogical influence of the non-future imperative. Second, the change of the final consonant *ŋ* into *k* is occasionally attested.

(12) *L'eikə   meń-təɣənək!*
candle take-FUT.IMP
'Take a candle!' (TY2010)

Such examples are not numerous (12 in Middle TY, 7 in Modern TY), but they do exist. They appear to demonstrate the analogical borrowing of the non-future imperative *-k*, which can optionally replace the final *-ŋ* inherited from the converbal form.[3]

The grammaticalization of the future imperative out of a converb in TY was obviously influenced by neighbouring languages, Sakha and Even, but some of its features make us think that it was Sakha, not LKE, that played the decisive role in this process. As indicated above, northern Tungusic languages tend to use the purposive converb in *-dA* combined with ss suffixes to encode 2nd person future imperative. These ss markers go back to reflexive possessive markers in all Tungusic languages. According to the relevant literature (Novikova,

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3 We may as well hypothesize that the loss of the final vowel in Sakha *-Aːr* [FUT.IMP] < *-AːrI* [PURP.SS.CVB], as per our proposal, was due to the analogical influence of the uninflected non-future imperative, which ends in a consonant for a large group of very frequent verbs (Ubrjatova, 1982: 214).

1960, 1980; Malchukov, 2001), eastern Even dialects differ from other north Tungusic languages in extending the use of *-dA* to hortatives and jussives, by attaching 1st and 3rd person personal possessive suffixes to *-dA*. Western and central dialects, however, diverge from this picture: our field data from the central Indigirka-Aldan dialect (Tompo region) and the data from the western Lamunkhin dialect (Pakendorf and Aralova, 2020) reveal that the proper future imperative, i.e., 2nd person, is never based on the purposive *-dA*. The same holds true for LKE: the purposive structure (*-dA* + possessive suffixes) occurs only in the hortative and jussive, i.e. in the 1st and 3rd person (*pace* Šarina and Kuz'mina, 2018: 69 ff.), while the 2nd person future imperative is encoded with a dedicated future imperative suffix *-ŋA* followed by the 2nd person marker, e.g., *bu:-ŋe-ndi* [give-FUT.IMP-2SG], *bu:-ŋe-hnen* [give-FUT.IMP-POSS.2PL]. So the LKE 2nd person future imperatives are in no way connected to converbs and could not serve as a model for the grammaticalization of the TY future imperative.

Sakha thus remains the most probable source of the TY pattern. The speakers of TY in contact with Sakha may have noticed that phonologically similar forms are used to express future-related and irrealis dependent situations, on the one hand, and future imperatives, on the other hand. This may have triggered the interpretation of the TY converb with an array of future-related meanings as the future imperative via insubordination. However, the actual subordination paths differed, as outlined above. The reason is that, while the TY conditional converb is the closest semantic equivalent of the Sakha SS purposive converb, it is always DS. The source construction hypothesized for TY is thus 'if you X, Y occurs', which does not imply that the subjects of Y and X should be coreferential, in contrast to the Sakha purposive constructions 'Y in order to do X', which implies the SS-relation between Y and X.

In sum, whereas 2nd person future imperatives based on converbs are quite widespread all over North Eastern Siberia, the actual model of the TY future imperative, including the choice of a converb, is likely to be Sakha.[4] LKE, on the other hand, has kept its standard western/central Even future imperative type unchanged.

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4 It is possible that the parallelism goes even further. The TY converb in *-ɣənə*, together with its KY equivalent, is a frozen accusative form. According to Böhtlingk (1964 [1851]: 303), Sakha *-A:rI* goes back to the accusative case of an old participle in **-A:r* (see also Pakendorf, 2007). Thus, if we believe Böhtlingk's proposal, the irrealis/future converbs have grammaticalized out of accusative nominalizations in both languages. However, this process must have predated the emergence of future imperatives and is therefore of no direct relevance for the scenario proposed in this paper.

3 Necessitive Constructions

TY, LKE and Sakha have several necessitive constructions each, with various nuances of meaning. Without aiming to describe them exhaustively, below we will only address those constructions that show commonalities attributed to linguistic contact between the three languages in question.

The first relevant necessitive construction in TY is based on the prospective bound word *~morau*. We define bound words as the words that have an independent phonological and prosodic structure, but cannot stand on their own, not even in elliptical contexts. Thus, bound words require a host but are phonologically separate from it: they do not participate in vowel harmony, syllabification, stress and foot structure rules together with the host. The host word can be inflected for various grammatical categories, but in some instances a bound word bears inflectional marking too.

The prospective bound word *~morau* can be thought of as a kind of light noun of the Japanese type. It combines with nouns in the genitive yielding the meaning 'for X, future X, meant/destined as X', where X is a base noun, e.g., *maɣi-n~morau* [coat-GEN~PROSP] 'future coat, meant to be a coat'. It could have been analysed as a postposition in this instance, if not for the fact that it may host case marking indicating core grammatical arguments, which is not possible for true postpositions in TY. It also commonly combines with the resultative action nominals in *-(j)oːl*, producing morphologically complex nominalizations in *-(j)oːl~morau*, e.g., *weː-* 'to do' > *weː-j-oːl* [do-O-RES.NMLZ] 'what is done' > *weː-j-oːl~morau* [do-O-RES.NMLZ~PROSP] 'what will be done' (translations are approximate). We will refer to such complex forms as 'prospective nominalizations'. Prospective nominalizations have different syntactic functions and show various degrees of sententialization, but for the most part they occur in embedded clauses. They do not necessarily have a modal meaning then, but simply indicate relative future. In fact, it is the only way to overtly express the future tense in some types of dependent clauses in TY. In (13a) the prospective nominalization heads a complement clause and takes the accusative case in the manner of regular nouns. Example (13b) illustrates its usage in a relative clause.

(13) a. *Tude-l   mə=möri-m   [met ńid'erpə-i   nime*
      3SG-NOM AFF=hear-TR.3SG 1SG   new-S.PTCP yurt
      weː-j-oːl~morau-ɣənə].
      make-O-RES.NMLZ~PROSP-ACC
      '(S)he heard that I would make a new yurt.'

b. [*Met jewligi-j-o:l~morau*]   *ö:*   *wa:ji   əl=med'o:l.*
1SG   love-O-RES.NMLZ~PROSP child yet   NEG=be.born(NEG.3SG)
'The child, whom I will love, hasn't been born yet.'

The structure of the necessitive construction includes the prospective nominalization augmented by the proprietive suffix *-ńə* and subject person/number markers, typical for the finite inflection. The proprietive suffix productively derives denominal verbs with the meaning 'to have X, with X', where X is the base noun. For example, the proprietive form of the noun *ile* 'reindeer' is *ile-ńə-* [reindeer-PROPR] 'to have reindeer', and so on. The latter is grammatically a verb, in spite of the fact that the base noun preserves some nominal properties. It is clear that the proprietive suffix is added to the prospective nominalization because *~morau* has not fully lost its nominal status: it must combine with a verbalizer such as the proprietive *-ńə* in order to take verbal subject marking (cf. Kurilov, 2006: 161–162).

Without going into semantic details, the necessitive expresses some kind of obligation or necessity ('must, have to, ought to'). This can be understood as an internal state experienced by the subject participant, for instance, due to physical reasons (14), or as an obligation imposed by external circumstances such as e.g., an order, an expectation or a social norm (15).

(14) *A:w-a:-j-o:l~morau-ńə-ŋi.*
sleep-INCH-O-RES.NMLZ~PROSP-PROPR-INTR.3PL
'They had to sleep.' (TY2012)

(15) a. *Ma:liji-n ča:s-qə* […]
six-GEN   hour.R-LOC
mə-r=ego:-j-o:l~morau-ńə-jək.
AFF-O=get.up-O-RES.NMLZ~PROSP-PROPR-INTR.2PL
'You must get up at six o'clock.' (Kurilov, 2005: 138)

b. *Jalɣi-təgə jaɣa-də-ɣə*
lake-AUG   edge-3POSS-LOC
ńumud'-o:l~morau-ńə-ili.
camp-RES.NMLZ~PROSP-PROPR-INTR.1PL
'We were supposed to camp on the bank of a lake.' (TY2012)

This necessitive construction does not involve the change of valency, so the subject and object arguments appear in their regular case forms, see e.g., example (16) below. However, the verb exhibits morphological detransitivization in

basic non-focus constructions. This means that the verbalized prospective form *~morau-ńə* is conjugated according to the intransitive type, even if the lexical verb is transitive and takes a direct object. There are simply no transitive forms of *~morau-ńə*, as is also the case with all proprietive verbs, which can only be intransitive.

(16) *Köde nime-lə   we:-j-o:l~morau-ńə-i   /*
     man house-ACC do-O-RES.NMLZ~PROSP-PROPR-INTR.3SG
     *we:-j-o:l~morau-ńə-m.
      do-O-RES.NMLZ~PROSP-PROPR-TR.3PL
     'A man has to build a house.'

One of the LKE necessitive constructions corresponds to the TY *~morau* construction in almost every detail. It is based on the future participle *-d'IŋA* combined with the proprietive suffix *-lkA:n* (Šarina and Kuz'mina, 2018: 67). The participles in Even display the typical Tungusic word class ambiguity (in the sense of Nikolaeva and Spencer, 2019): they have a number of verbal properties and are able to function both as modifiers and arguments. This is true for the participle *-d'IŋA*, too, which, similar to the TY prospective nominalizations, can head relative and complement clauses with the relative future time reference, as shown in the sentences in (17), which both stem from the eastern Even dialects of the Magadan region (a) and the Middle Kolyma (b).

(17) a. [*Tịmịna   em-d'iŋe*]   *bej* [...] *te:leŋ-u   emu-d'i-n.*
        tomorrow come-FUT.PTCP man   news-ACC bring-FUT-3SG
        'The man who will arrive tomorrow will bring the news.' (Novikova, 1980: 110)

     b. [*Ujand'ị:na   kńị:ga-w   ga-d'ịŋa-wa-n*]
        Ujandina   book-ACC take-FUT.PTCP-ACC-POSS.3SG
        go:n-i-ten.
        say-PST-POSS.3PL
        'They said that Ujandina would receive the book.' (Even, 2008)

In the necessitive construction with the future participle *-d'IŋA*, the participle is augmented with the proprietive suffix *-lkA:n*. Like in TY, this suffix is productively attached to nominals but derives adjectives meaning 'having X, being with X', where X is the denotation of the base nominal, as, for instance, in *hute-lke:n* [child-PROPR] 'having a child'. In LKE, this suffix can also be attached to participles. The combination of the future participle and the proprietive

suffixes, *d'IŋA+lkA:n*, is restricted to the predicative position and follows the general Even rules for nominal predicates: if the subject is 3rd person singular and the sentence is in the unmarked tense, the nominal predicate is bare, without a copula (18a); in all other person/number-tense constellations, the nominal predicate is followed by the copula *bi-* in the appropriate form (18b).

(18) a. *Tịmịna   eńmu* [...]   *ụnta-w   haŋa:n-d'ịŋa-lka:n.*
    tomorrow mother.POSS.1SG boot-ACC   sew-FUT.PTCP-PROPR(3SG)
    'My mother must sew fur boots tomorrow.' (Šarina and Kuz'mina, 2018: 87)

   b. *Hi:hečen d'eb-d'iŋe-lke:n   bi-hi-w.*
    evening   eat-FUT.PTCP-PROPR   be-PST-POSS.1SG
    'I was supposed to eat in the evening.' (LKE2022)

The examples above show that the LKE necessitives in *-d'IŋA-lka:n* denote deontic modality, covering a broad array of meanings, from moral obligation all the way to past expectations.

This necessitive construction based on proprietives is almost certainly a pattern copy from Sakha both in TY and LKE. The Sakha necessitive structure that is of direct relevance here is referred to as 'the future tense of the necessitive mood' by the authors of Ubrjatova (1982).[5] It is formed with the complex suffix *-IAχtA:χ* plus predicative person/number subject marking (null in the 3SG). The suffix *-IAχtA:χ* in its turn is a fusion of the future participle *-IAχ* and the proprietive *-LA:χ*, where *l* assimilates to the final *χ* of the participle yielding *t*.

(19) a. *Bier-bit   til-gin   en   tolor-uoχ-ta:χ-χïn.*
    give-PST.PTCP word-ACC.POSS.2SG 2SG fulfil-FUT.PTCP-PROPR-2SG
    'You must keep the word you gave.' (Ubrjatova, 1982: 330)

   b. *Bi:r-git   ölör-üöx-te:χ.*
    one-POSS.2PL kill-FUT.PTCP-PROPR(3SG)
    'One of you must kill.' (Illarionov and D'jakonova, 2008: 304)

These constructions mirror LKE and TY. The TY prospective nominalization in *-(j)o:l~morau* is the only explicitly future-oriented non-finite verbal form that

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5 The present tense forms of the necessitive mood are based on a different participle, while the past tense requires a copula verb (Ubrjatova, 1982: 329–331). These do not have structural equivalents in TY, but in LKE the past tense requires a copula, too.

can be employed in complement and adverbial clauses and it represents the closest equivalent of the Sakha future participle. This same functional parallelism with the Sakha future participle is observable in the case of the LKE future participle in *-d'IŋA*. In all three languages, the structure is then as follows: 'future nominalization + proprietive + subject marking'. We believe this structure to be copied from Sakha to TY and LKE rather than the other way round for the following three reasons.

First, the relevant structure does not occur in either KY or other Even dialects. KY has a prospective item *~možu:*, etymologically related to TY *~morau*.[6] It combines with nouns but is not productive and is only used in a few lexicalized expressions. Although it combines with nominalizations too, it never takes the proprietive form. In addition, KY has the auxiliary verb *moži:-* (also cognate with the TY suffix of the potential mood *-mori-*) with various modal meanings including the necessitive, but it is not based on the proprietive either. Similarly, the structure including the future participle and the proprietive suffix is unique to LKE. To express necessity, other Even dialects employ the predicative forms based on specialized necessitive participles, *-nnA* (attested in all dialects except LKE, including the speech of the Allaikha region, which is geographically and genealogically the closest dialect to LKE; see Dutkin, 1995) or *-nnAŋA:t* (Indigirka-Aldan and Arka-Lower Maya dialects). What is more, the combination of a participle with the proprietive marker is highly atypical for Even in general. As mentioned above, the proprietive suffix is normally restricted to the derivation of adjectives from nouns, and we are not aware of its combinability with participles in any other construction or any other dialect. Thus, the necessitive construction that involves the proprietive derivation is unique to TY and LKE.

Second, the proprietive future participle is used in more syntactic contexts in Sakha than in TY and LKE. It can head relative, adverbial and complement clauses, e.g.:

(20) a. [*Üörex-χe   bar-ïaχ-ta:χ*]   *kï:s.*
        studies-DAT go-FUT.PTCP-PROPR girl
        'The girl who must go to study.' (Ubrjatova, 1982: 330)

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6   Nikolaeva (2006: 118) reconstructs the respective Proto-Yukaghir root as **monč-* based on the regular correspondence TY *r* ~ KY *ž*, but the quality of the first vowel is uncertain and so is the ending of the root: in principle it could also be **manč-, *monča-* or **manča-*. It would be interesting to explore whether this root has anything to do with Proto-Tungusic **man-du:-* 'to try, to strive', realized as Evenki *mandu:w-*, Even *manrụ-/mandụ-* and Orok *mandụ-* (Cincius, 1975: 528).

b. [*Onno bars-ïaχ-taχ-pïn*]   *min kïajan öjdö:-böp-pün.*
   there go-FUT.PTCP-PROPR-2SG 1SG cannot understand-NEG-1SG
   'I can't understand why I must go there.' (Ubrjatova, 1982: 330)

These kinds of structures are impossible in either TY or LKE. Although prospective nominalizations and future participles, as mentioned above, head dependent clauses, they never take the proprietive then, as can be seen if (20) is compared to (13) and (17) above. So the Sakha proprietive future participle is a well-established multifunctional category, whereas TY and LKE copied only one of its functions, the predicative one.

Finally, and perhaps most importantly, according to Ubrjatova (1972: 593), future participles in the proprietive form exist in other Turkic languages, e.g., Uighur and a number of Oghuz languages, in roughly the same function, and are present in all dialects of Sakha. This means that this structure must be an inherited feature in Sakha, in contrast to TY and LKE.

The second relevant necessitive construction is by far less frequent. In TY, it is also based on the prospective nominalization in *~morau* employed as the main predicate. However, in this instance it is not verbalized by means of the proprietive suffix but follows the regular pattern of nominal predicates instead. The prospective word must bear the predicative marker *-k*, essentially a copula required when a subject of a nominal predicate is 3rd person, cf. the nominal predicate in (21) and the impersonal necessitives in (22). The construction conveys a variety of necessitive meanings and must be impersonal. That is, the subject is interpreted as indefinite or generic, and cannot be overtly expressed.

(21) *Ta:t~ban-d'ə   göde-k.*
     so~be-S.PTCP man-PRED
     'S/he is such a person.' (Kurilov, 2005: 348)

(22) a. *D'e qo:dəl'ə-j-o:l~morau-k?*
        DP do.what-O-RES.NMLZ~PROSP-PRED
        'So, what should be done?'

     b. *Qo:də l'ï:-j-o:l~morau-k*   *tu-ŋ*   *qail'?*
        how   treat-O-RES.NMLZ~PROSP-PRED this-ATTR stone
        'How should one treat this stone?' (Kurilov, 2001: 155)

     c. *Pojo:l a:wə-j-o:l~morau-k.*
        a.lot sleep-O-RES.NMLZ~PROSP-PRED
        'One should sleep a lot.'

We find the same type of construction in LKE, too, modulo differences in the structure of nominal predicates. The future participle in *-d'IŋA* remains uninflected, as is common for Even participles used as finite predicates in the 3SG unmarked tense, and there is no copula. The subject is unspecified and the necessitive meaning is that of a generic truth, a precept or a rule, as in (23). Note that (23b) contains the borrowed Sakha particle *tusta:k*; we will come back to this point below.

(23) a. *Ma:-t-mi*   *bimi buka:tịn*   *ma:-d'iŋa.*
kill-RES-COND.SS.CVB DP   in.general kill-FUT.PTCP(3SG)
'If one hunts, one should kill (sc. the animal) completely.' (Šarina and Kuz'mina, 2018: 143)

   b. *Umen=de tu:rem*   *e-d'iŋe*   *tusta:k*
one=ADD word.ACC NEG.AUX-FUT.PTCP(3SG) NEC.SA
tu:re-r   *nam-dụla.*
speak-NEG.PTCP sea-LOC
'One shouldn't say a word close to the sea.' (Šarina and Kuz'mina, 2018: 87)

Again, this structure is completely absent from either KY or other Even dialects. The latter employ the modal item *na:da*, borrowed from Russian *nado*, combined with the conditional SS converb in *-mI* to express impersonal necessity (Malchukov, 2008: 184 ff.). KY uses the Russian borrowing, too (Maslova, 2003b). However, this necessitive structure has an exact counterpart in Sakha, where the impersonal necessitive follows the nominal pattern: the future participle does not combine with the proprietive but is followed by the existential copula *ba:r* 'there is' (Ubrjatova, 1982: 234). Similar to TY *-k*, Sakha *ba:r* is used in existential predications that introduce an entity. According to Filipov (2015), the main function of the Sakha impersonal necessitive does not consist in conveying an obligation or wish, but in emphasizing that the future event is an objective necessity.

(24) a. *Bügün ki:ne-ɣe*   *bar-ïaχ*   *ba:r.*
today   movies-DAT go-FUT.PTCP there.is
'One should go to the movies today.' (Filipov, 2015: 114)

   b. *Ịjït-ïaχ*   *ba:r.*
ask-FUT.PTCP there.is
'One should ask.' (Slepcov, 1972: 56)

Given the complete structural and functional parallelism, it is plausible to assume that this Sakha construction served as the model for TY impersonal necessitives in *-k* and the LKE predicative structures with the bare participle in *-d'IŋA*.

The third relevant necessitive construction does not occur in TY[7] but is in fact the most frequent type in the LKE discourse. It is composed of the future participle directly inflected with possessive markers which index the subject. Note that this structure differs from the impersonal necessitive described above in the obligatory presence of subject indexing even in the 3rd person singular, cf. the contrast between *hur-d'iŋe-n* [go-FUT.PTCP-POSS.3SG] 's/he should go' and *hur-d'iŋe* [go-FUT.PTCP(3SG)] 'one should go'.

The use of inflected participles as main predicates is typical for Even and other Tungusic languages. In particular, the inflected future participle occurs as the main predicate in all central Even dialects and is usually labelled Future II in this function. It denotes remote, uncertain or planned future situations (see e.g., Lebedev, 1978: 49, where parallel structures in Evenki are mentioned too). The meaning of distant or uncertain future is also attested in LKE (25), but the most frequent interpretation of this structure is modal, ranging from externally induced obligation all the way to the general rules of conduct (26).

(25) *Tigemi   ti:k   tatkat-čiŋa-hnan   ịlkadị to:rem.*
      therefore now   learn-FUT.PTCP-POSS.2PL Even   word.ACC
      'You will therefore now learn the Even language.' (Šarina and Kuz'mina, 2018: 68)

(26) a. *Hi: tara-w   d'eb-d'iŋe-h   tusta:k.*
        2SG   that-ACC   eat-FUT.PTCP-POSS.2SG NEC.SA
        'You must eat it now.' (LKE2010)

   b. *Digen mịan ịlan   ḳomanda bi-d'iŋe-n.*
      four   ten   three   team.R   be-FUT.PTCP-POSS.3SG
      'There should be forty-three teams.' (LKE2022)

   c. *Digen mịar-dụk tiwne-čiŋe-n   tusta:k.*
      four   ten-ABL   calm.down-FUT.PTCP-POSS.3SG NEC.SA
      'He must calm down when he turns forty.' (LKE2022)

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7   We have several TY examples of a similar kind but at present it is unclear how they should be analysed.

The reinterpretation of the future tense as (deontic) modal is a frequent semantic development (e.g., Diewald and Smirnova, 2010; Grossman and Polis, 2014: 233 ff.), so contact influence need not be assumed to be its trigger. This seems to be the case all the more as the LKE construction does not have a formal counterpart in TY, and there is no direct modal equivalent in Sakha either. The relevant structure (the future participle in *-IAɣ* + possessive person and number markers indexing the subject) does exist in Sakha, but in a non-modal function: it forms the regular indicative future, e.g., *bar-ïaɣ-ïm* [go-FUT.PTCP-POSS.1SG] 'I will go', *bar-ïaɣ-ïŋ* [go-FUT.PTCP-POSS.2SG] 'you will go', etc. (Ubrjatova, 1982: 223).

However, we have reasons to think that the change from distant future to necessitive in LKE may have been inspired by Sakha. In many (though not all) instances in our LKE corpus, the inflected future participle is followed by the particle *tusta:k*, which is a clear instance of borrowing of the Sakha auxiliary *tusta:χ-*. Etymologically, *tus-ta:χ-* is the proprietive form in *-La:χ* of the noun *tus*, which can be roughly translated as 'side, direction; business', but has grammaticalized as a necessitive auxiliary. According to Ubrjatova (1972: 593), this development has an exact parallel in another Siberian Turkic language, Tuvan. In Sakha, the relevant necessitive construction includes the uninflected future participle in *-IAχ* followed by *tusta:χ-*, which takes predicative suffixes to index the subject, as in (27).

(26)   *Saŋa atax-taŋah-a   il-ïaχ   tusta:χ-pïn.*
      new   shoe-cloth-POSS.3SG take-FUT.PTCP NEC-1SG
      'I have to buy new shoes.' (Siegl, 2021: 48)

Siegl (2021: 48) reports that personal necessitive constructions with *tusta:χ-* are perceived as somewhat obsolete by the speakers of modern Sakha he consulted, being gradually replaced by the Russian-influenced constructions with *na:da*, but they are still attested in various contemporary sources.

An important difference between Sakha and LKE is that, while the LKE *tusta:k* is an optional particle that never takes inflections, Sakha has two distinct lexical items. The first item is *tusta:χ-*, which behaves like a regular auxiliary, inflects for person/number and takes the future participle as its complement. Its bare form *tusta:χ* occurs with 3SG subjects and carries the covert 3SG feature to index the subject. The second item is the unchangeable particle *tusta:χ*, which only occurs in impersonal constructions, where it can replace the copula *ba:r*. Thus, the form *tusta:χ* is functionally ambiguous, as shown in (28).

(28) a. *Bi:rdes-kit   ölör-üöx   tusta:χ.*
     one-POSS.2PL   kill-FUT.PTCP   NEC(3SG)
     'One of you will have to kill.' (Siegl, 2021: 49)

   b. *Tala:n-ïn   sajïnnar-ïaχ   tusta:χ.*
     talent-ACC.POSS.3SG   develop-FUT.PTCP   NEC
     'One must develop his/her talent.' (Slepcov, 1972: 407)

If Sakha auxiliary construction has indeed given rise to the necessitive use of
the inflected future participle in LKE, then this process must have started with
such bare forms.

We can postulate the following scenario. As stated, it is *tusta:χ-* that carries
the covert [+3SG] feature in (28a). However, the rules of the Sakha grammar
allow the uninflected future participle to also be interpreted as [+3SG], as in
the regular future tense, while *tusta:χ* can be interpreted as an unchangeable
particle independently present in the Sakha grammar. Thus, the construction
has the potential to be reanalysed as the combination of the future tense and
the uninflected necessitive item *tusta:χ*. For instance, the structure *ölör-üöx
tusta:χ* glossed as [kill-FUT.PTCP NEC(3SG)] in (28a) can also be interpreted
as [kill-FUT.PTCP(3SG) NEC]. The latter combination was then copied to LKE,
which differs from Sakha in having an overt 3SG subject marker, *-n(I)*, so that
the above phrase is expressed as *ma:-d'iŋa-n tusta:k* [kill-FUT.PTCP-3SG NEC].
The construction comprising an inflected future participle and the uninflected
tusta:k was later generalized to other person/number combinations. Schemat-
ically we can represent this as follows: uninflected FUT.PTCP + inflected *tusta:χ*
> inflected FUT tense + uninflected *tusta:k*.

This postulated development would help explain the reinterpretation of
Future II as the necessitive by the LKE speakers and the complete disappear-
ance of the pan-Even necessitive in *-nnA*, ousted by the new structure. We are
aware, however, that the evidence for this development is less than fully com-
pelling and therefore treat it as a case of mere possibility, in contrast to the first
two necessitive constructions, where the Sakha influence is highly probable.

To sum up, TY and LKE exhibit the following types of necessitive construc-
tions: (i) structure based on the future nominalization in the conjugated propri-
etive form, (ii) structure based on the future nominalization in the predicative
position (which requires a copula in TY), and (iii) structure in which the future
nominalization bears the subject marking itself (in LKE only). The source of
all three constructions appears to be Sakha, but the evidence is more conclu-
sive for the first and second patterns than the third. It is interesting to note
that the Sakha proprietive-based necessitive has been independently copied

into the western Lamunkhin Even dialect (Pakendorf, 2009, 2014). However, the Lamunkhin Even necessitive is an instance of substance borrowing, with the Sakha suffix *-ıAχtA:χ* directly attached to Even roots, whereas TY and LKE display pattern copying.

4 Evaluative Morphology

The two Yukaghir languages, KY and TY, exhibit cognate diminutive and augmentative suffixes on nouns and verbs. What is more, TY has two additional evaluative categories, which we refer to as the 'pejorative' and 'hypocoristic'. Both can be nominal or verbal and neither has a counterpart in KY, where grammaticalized pejoratives and hypocoristics are totally absent.

Starting with pejorative morphology, the TY nominal pejorative marker *~mutil* is a bound word. It has a fully independent phonological structure but never occurs without a host noun. In combination with lexical nouns it forms part of periphrastic evaluative constructions which can be roughly translated as 'pathetic' or 'good for nothing'. According to Kurilov (2006: 273), they express disapproving or derogatory attitude towards a referent and can be used for tabooistic reasons, i.e. to prevent an object or person from ill fate. *~mutil* must follow the lexical noun, which normally, but not always, stands in the genitive case, e.g.:

(29) *Tide-ŋ   met ma:rqə-n ö:(-n)~mutil   tada: l'e-i.*
     that-ATTR 1SG one-GEN child-GEN~PEJ there be-INTR.3SG
     'That pathetic child of mine is there.'

It is clear that the pejorative structure *ö:(-n)~mutil* is modelled after possessive constructions: lexical possessors in TY must precede the possessed noun and take an optional genitive. The difference of course is that *~mutil* does not exist as an independent noun in the modern language, but the similarity with possessives suggests that in the past it headed a possessive phrase.

The bound pejorative word takes possessive and case morphology that takes scope over the whole construction. Examples (30a, b) illustrate that it cannot attach to the inflected lexical noun.

(30) a. *Köde-n~mutil-gi   / *köde-gi~mutil   keurəi-tə-m*
        man- GEN~PEJ-3POSS   man-3POSS~PEJ take.away-FUT-TR.3SG
        tude-γənə.
        3SG-ACC
        'Her pathetic husband will take her away.'

b. *Te:-ŋ   ile~mutil-ɣənə   / *ile-ɣənə~mutil*
   that-ATTR reindeer~PEJ-ACC   reindeer-ACC~PEJ
   keurəi-tə-m.
   take.away-FUT-TR.3SG
   'He will take away this good-for-nothing reindeer.'

The phonological structure of ~*mutil* suggests that it has a verbal origin. Nouns in *-l*, especially when it follows *i*, usually go back to productive deverbal nominalizations in *-l* that can be lexicalized to various degrees, e.g., *jamd'il* 'illness, disease' from *jamd'i-* 'to be ill', *anil* 'gift' from *ani-* 'to give as a gift', etc. There is indeed a morphologically regular verb TY *muti-*, with has not been attested in KY but with which the TY nominal pejorative ~*mutil* is obviously cognate.

The verb *muti-* functions as an auxiliary and participates in the periphrastic construction together with the nominalized form of a lexical verb. The construction denotes the event that takes place in the real world but is evaluated by the speaker as being a deviation from the established norm or occurring in a wrong manner. It is essentially evaluative in nature and we will refer to it as 'the verbal pejorative' (V.PEJ), but it can sometimes imply that the subject participant makes a voluntary effort to give the appearance of something that is not actually the case. So the meaning of *muti-* in modern TY must be something like 'to do X in a wrong way; to do something like X; to pretend to X'. The nominalized lexical verb stands in the genitive case, reminiscent of the fact that the nominal pejorative ~*mutil* governs the genitive. The genitive *-n* replaces the nominalization suffix *-l*, as is standard for *l*-ending nouns in TY. For instance, the genitive form of the nominalization *mira-l* derived from the verb *mira-* 'to walk' is *mira-n*, which we will gloss here as [walk-GEN(NMLZ)].

In Kurilov's (2001) dictionary, *muti-* is listed as morphologically transitive and its imperfective form *muti-nu-* as morphologically intransitive. However, the imperfective derivation does not lead to the change in transitivity in TY. In fact, in our data both *muti-* and *muti-nu-* can be either transitive or intransitive, depending on the transitivity of the lexical verb. The morphologically intransitive *muti-* and *mutinu-* combine with intransitive lexical verbs.

(31) a. *Tude-l   a:wə-n   muti-j.*
        3SG-NOM sleep-GEN(NMLZ) V.PEJ-INTR.3SG
        'He pretends to sleep.'

   b. *Čaɣad'ə-n   muti-nu-jəŋ.*
      work-GEN(NMLZ) V.PEJ-IPFV-INTR.1SG
      'I am pretending to work.' (Kurilov, 2001: 273)

If the lexical verb is transitive, there is variation:

(32) a. *Moŋo-lə   i:rə-n   muti-j   / muti-m.*
   hat-ACC sew-GEN(NMLZ) V.PEJ-INTR.3SG   V.PEJ-TR.3SG
   'She has made the hat badly (in a wrong way).'

   b. *Auja: maɣil-ə   i:rə-n   muti-nu-i   /*
   yesterday coat-ACC sew-GEN(NMLZ) V.PEJ-IPFV-INTR.3SG
   muti-nu-m.
   V.PEJ-IPFV-TR.3SG
   'Yesterday, she was making a coat badly.'

This kind of variation in combination with a transitive lexical verb is not specific to *muti*: it is observed in a number of other periphrastic verbal constructions in TY.

However, the pejorative differs from other periphrastic constructions in at least two respects. First, our consultants did occasionally accept examples in which *muti-* was morphologically transitive even when combined with an intransitive lexical verb, as in (33).

(33) *Auja: i:mid'e:-n   muti-nu-ŋi   / muti-nu-ŋa:.*
   yesterday dance-GEN(NMLZ) V.PEJ-IPFV-INTR.3PL   V.PEJ-IPFV-TR.3PL
   'They were giving the appearance of dancing yesterday.'

Second, unlike in other periphrastic verbal constructions, the lexical verb can be omitted under ellipsis, and again, both intransitive and transitive auxiliary forms are possible in this instance.

(34) *Ta-ŋ   sa:l-pə   mə=kiwerə-mək?   Mə=muti-ŋ   /*
   that-ATTR wood-PL AFF=plane-TR.2SG AFF=V.PEJ-TR.1SG
   Mə=muti-jəŋ.
   AFF=V.PEJ-INTR.1SG
   '– Did you plane those pieces of wood? – I kind of did it.'

These facts suggest that *muti-* has not been fully grammaticalized as an auxiliary, but retains its own argument structure with the object-like propositional argument that can correspond to an anaphoric null with a salient semantic content.

Given that there are no traces of either nominal or verbal pejoratives in either KY or Early TY materials, it is reasonable to search for the possible source

of the TY pejorative constructions in language contact. We propose that it comes from Sakha.

The Sakha noun *duom* has the lexical meaning 'habit, order; sign, appearance' or the like (Slepcov, 1972: 119) and there is also the archaic word *tuom* 'ceremony, rite' (Slepcov, 1972: 402). These are treated as related in Pekarskij (1958/1959: 751, 2822). The frozen 3SG possessive form of the former, *duom-a*, can function as a semantic modifier to the preceding lexical noun, and expresses the pejorative (or, more rarely, diminutive) meaning.[8] We will gloss it as PEJ in this instance but do not separate it with the tilde because, technically, *duom-a* is still an independent word. Like in TY, the pejorative construction models possessives but, unlike in TY with its optional genitive, Sakha possessives are head-marked, and that is why the pejorative word *duom* must bear possessive marking yielding *duom-a*, e.g., *kihi duom-a* [man PEJ-POSS.3SG] 'good-for-nothing man', *at duom-a* [horse PEJ-POSS.3SG] 'good-for-nothing horse' (Ubrjatova, 1982: 113). The old genitive, homonymous with the 3rd person possessive accusative, attaches to the lexical noun only when it heads its own possessive phrase, as in *er-in duom-a* [husband-GEN.POSS.3SG PEJ-POSS.3SG] 'her good-for-nothing husband'. This is the regular structure of complex possessive constructions in Sakha. Case morphology that signals the syntactic role of the periphrastic pejorative construction goes on the pejorative marker, as in TY, cf. (35) and (30b) above.

(35) a. *d'ie   duom-ugar*
         house PEJ-DAT.POSS.3SG
         'in the small house'

      b. *Son-un   duom-un   ket-te.*
         coat-GEN.POSS.3SG PEJ-ACC.POSS.3SG put.on-PST.3SG
         'He put on his pathetic coat.' (Slepcov, 1972: 119)

Furthermore, Sakha exhibits a multi-verb construction comparable in meaning to the TY verbal pejorative. It comprises the verb *duomna:-* (Slepcov, 2006: 192) or *tuomna:-* (Slepcov, 2014: 216) in a conjugated form (also glossed here as V.PEJ) combined with a SS converb of a lexical verb. The resulting meaning is 'to do X badly; to give the appearance of X; to pretend to X; to try to X', as in (36):

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8   There is another periphrastic pejorative in Sakha (with *ele:ske* 'rags'), so the speakers of TY could have heard two pejorative constructions.

(36) a. *Bihigi solbuj-a   utuj-an   duomna:-tï-bït.*
      1PL   alternate-SIM.SS.CVB sleep-SEQ.SS.CVB V.PEJ-PST-1PL
      'We kind of slept alternately / we tried to sleep alternately.'

   b. *Oŋor-on   duomna:!*
      do-SEQ.SS.CVB V.PEJ(IMP.2SG)
      'Do something like that! / Try to do it!'

Judging from the internet search, this construction does not appear to be frequent and its syntactic status, i.e., whether we are dealing with the true auxiliary or some kind of serialization, is not clear from the available sources, but this is not so important for present purposes. What is important for us is that *duom-na:- ~ tuom-na:-* is derived from *duom ~ tuom* by means of the frequent suffix of denominal verbs *-LA:- > -na:-* (Slepcov, 1972: 119). Pekarskij (1958/1959: 2822) and Slepcov (2014: 126) cite an additional, less grammaticalized meaning of the verb *tuomna:-*, 'to perform a rite or a ceremony' suggesting that it goes back to *tuom* in the meaning 'rite'.

The fact that *duom ~ tuom* still exists as an independent lexical word and *duomna:- ~ tuomna:-* used to have a more concrete lexical meaning, at least at the time Pekarskij collected his data, suggests that the grammaticalization of pejoratives is an internal Sakha development. We propose that the semantic change that led to the grammaticalization of the nominal pejorative should be roughly sketched in the following manner: 1. 'rite, ceremony' > 2. 'appearance, resemblance' > 3. 'something inadequate, something bad'. The verbal pejorative seems to follow a similar semantic path: 1. 'to perform a rite' > 2. 'to give the appearance' > 3. 'to do something inadequately'.

As for TY, the situation is partly different. Unlike in Sakha, the pejorative is verbal in its origin, since the nominal *~mutil* is an obvious deverbal noun derived from the verb *muti-*. This verb is likely to be quite old and have a more concrete lexical meaning in the past ('to give the appearance' or the like).[9] However, the pejorative is a new category: it does not exist in KY and there is no evidence that TY *muti-* was employed as the pejorative marker, either in its

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9 This is indirectly suggested by the following comparative data: Proto-Altaic *m[ĺu]ti-* 'to know, to believe' > **büt-* 'to believe; sign, token', Proto-Mongolic **mede-* 'to know', Proto-Tungusic **mute-* 'can, be able' (Starostin et al., 2003). Note also the Tommot Evenki nominalization *mutin* 'appearance, image; face' (Romanova and Myreeva, 1968: 102). According to Cincius (1975: 561), it has no etymological counterpart in other Tungusic languages but can be related to the same family of words. If TY *muti-* < **mut(V)-* is cognate too, either through earlier contacts or perhaps even some kind of distant genetic inheritance, its original lexical meaning could be 'to believe X' > 'to give the appearance (of X)'.

nominal or verbal form, prior to the intense contact with Sakha. We therefore suspect that its grammaticalization as a pejorative marker occurred due to the shared pattern with Sakha. The speakers of TY associated Sakha *duomna:-* in the meaning 'to give the appearance' (the second stage in the tentative grammaticalization path sketched above) with TY *muti-* with the same meaning, and replicated its further development into the verbal pejorative marker, in combination with a non-finite form of the lexical verb. The possessive structure of the nominal pejorative construction was also copied from Sakha, but the nominal pejorative marker in TY is derived from the pejorative verb, which is etymologically the direct opposite to Sakha.

Turning now to hypocoristics, we only have a few very tentative observations to offer. As mentioned above, hypocoristics are completely absent from KY. TY has the nominal hypocoristic word which conveys affectionate attitude, compassion and pity. Kurilov (2001: 74) transcribes it as *вэдьиэ* (*wed'e:* in our transcription), but our consultants insisted on the pronunciation *ö:d'e:*, phonetically [yœdziɛ/œ:dzɛ:] or [yɛdziɛ/ɛ:dzɛ:], see Odé (2012) on the variable realisation of the TY phoneme /ö:/.

The hypocoristic follows the nominative form of the lexical noun which it modifies semantically, e.g.:

(37) *Mit eńe: ö:d'e: mit-qənə löl-na:-m.*
      1PL mother HPCR 1PL-ACC bring.up-INCH-TR.3SG
      'Our poor mother started bringing us up.' (Kurilov, 2001: 213)

Like *~mutil*, *ö:d'e:* takes case marking that signals the syntactic role of the phrase (38a), but unlike in the pejorative construction, 3rd person possessive marking goes on the lexical noun (38b).

(38) a. *Tet eńe: ö:d'e:-γənə mə=puń-i-m.   / *eńe:-γənə   ö:d'e:.*
          2SG mother HPCR-ACC AFF=kill-O-TR.3SG   mother-ACC HPCR
          'He killed your poor mother.'

      b. *Aka:-gi   ö:d'e: mə-r=eulike:-i.   / *aka:*
          elder.brother-3POSS HPCR AFF-O=die-INTR.3SG   elder.brother
          ö:d'e:-gi
          HPCR-3POSS
          'His poor elder brother died.'

This suggests that the hypocoristic grammaticalized relatively recently out of an independent word, which in fact can still function as an independent noun

meaning 'pour thing, pour soul'. In (39) it is a noun modified by the attributive demonstrative *tuŋ*.

(39) *Tu-ŋ   ö:d'e: auja: mə-r=eulike:-i.*
     this-ATTR poor.thing yesterday AFF-O=die-INTR.3SG
     'This poor thing died yesterday.'

We suspect that the TY hypocoristic *ö:d'e:* goes back to the lexical noun *ö:* 'child' augmented with the diminutive suffix. The productive nominal diminutive has the form *-de:*, e.g., *nime-de:* [yurt-DIM] 'little yurt', and in the modern language the diminutive *ö:-de:* [child-DIM] 'little child' and the hypocoristic *ö:d'e:* 'poor thing' are formally and semantically distinct. However, the affricativized variant of the diminutive suffix, *-d'e:*, actually exists. It cannot attach to nouns in Modern TY but derives diminutive adverbs, e.g., *jöke* 'far' > *jöke-d'e:* 'a little bit far, farther', *pere-n* 'aside' > *pere-d'e:* 'a little aside'. It is unknown whether the nominal diminutive *-de:* and the adverbial diminutive *-d'e:* are etymologically related, or whether the combination of *-d'e:* with the noun *ö:* in the hypocoristic function signals the partial adverbialization of the latter. In any instance, the connection between *ö:* 'child' and *ö:d'e:* 'poor thing' is worth exploring given the evidence from Sakha.

One of several periphrastic diminutives in Sakha consists of the possessive form of the noun *oγo* 'child', *oγo-to*, which follows the lexical noun, e.g., *at-ïm oγo-to* [horse-POSS.1SG child-POSS.3SG] 'my little horse', *bü:ka: d'ie oγo-to* [small house child-POSS.3SG] 'a very small house', see Xaritonov (1947: 100), Slepcov (1972: 265) and Ubrjatova (1982: 113). The construction is primarily diminutive in meaning but in addition to denoting the size of the referent, it expresses sympathy, tenderness or affection, as is often the case across languages. Nouns meaning 'child' are known to be the frequent source of diminutives and hypocoristics in the languages of the world (Jurafski, 1996). Yet, it is quite remarkable that TY developed a new evaluative category rather recently and the lexical source of the evaluative marker appears to be the same as in the neighbouring Sakha.

The verbal hypocoristic in TY, not related to the nominal hypocoristic, is expressed with the suffix *-ködi* on the verb. Krejnovič (1982) analyses it as mood, but it rather has an evaluative meaning: it expresses sympathy, pity or the general affectionate attitude towards the subject referent. It cannot target the object or any other participant. The subject participant is mostly animate, primarily human, although non-human animate subjects denoting animals are also possible.

(40) a. *Eńe:-pə-gi*　　　　　*wa:ji mə=jaba-ködi.*
　　　　mother-PL-3POSS too　AFF=die-HPCR(INTR.3SG)
　　　　'Their mother died too, poor thing.' (Kurilov, 2005: 370)

　　　b. *Qa:liča*　　　　　*ö:-lə-ŋ*　　　　　　*ta:tl'ər*　　*qaldəi-ködi-l'əń*
　　　　terrific.S.PTCP child-PRED-CONTR therefore flee-HPCR-EV.INTR.3SG
　　　　'He is a good kid, apparently that's why he ran away, poor soul.' (TY2010)

Both Sakha and LKE have verbal evaluative suffixes, *-A:χtA:* and *-jAč/t*, respectively, which express compassion towards the subject referent and generally carry the meanings comparable to TY *-ködi* (for Sakha see Ubrjatova, 1982: 225, and Pakendorf and Stapert, 2020). The suffix *-jAč/t* is common in LKE, according to our corpus data, and is additionally attested in one eastern Even dialect (the dialect of the Middle Kolyma, see Robbek, 2007: 126) and one western dialect, that of Lamunkhin (Pakendorf, 2017). Given its dialectal distribution, the Even *-jAt/č* is almost certainly an inherited feature in LKE.

In contrast, both the absence of a comparable morpheme in KY and the peculiar phonological features of the TY verbal hypocoristic *-ködi* indicate that it is a product of a rather recent development. *-ködi* is a disharmonic suffix, which means that, unlike regular suffixes, it does not harmonize to the vowels of the root and defines its own harmonic domain, cf. *jaba-ködi-* [die-HPCR] and *eurə-ködi-* [walk-HPCR]. What is more, it does not follow the standard distributional rules for non-high vowels (exceptionally, the non-high vowel *ö* appears outside of the leftmost bimoraic foot), and has variable placement with respect to other inflectional categories, in particular, mood and aspect. For example, it follows the desiderative, imperfective and inchoative, but precedes the potential and habitual, cf. *jaba-lbuń-e:-ködi-* [die-DES-INCH-HPCR], *jaba:-nu-ködi-mori-* [die-IPFV-HPCR-POT], and *jaba-ködi-nun-* [die-HPCR-HAB]. These features indicate that *-ködi* agglutinated relatively recently out of an independent word, and indeed it goes back to the independent lexical noun *köde* 'person, human', still very much in use in TY.

The evidence is far from conclusive but we suspect that TY has developed the new evaluative category under the Sakha and/or LKE influence. Its development may have been inspired by the frequent use of verbal hypocoristics in these two neighbouring languages. This is admittedly a rather weak case, given that *-ködi* appears to be an internal development in terms of its origin as the noun meaning 'person, human'. If it is a product of language contact, then only in the most general sense, such that TY speakers merely created the category though Sakha or LKE influence but used the internal morphological means to build it up.

Finally, it is worth noting that LKE has no periphrastic pejoratives and seems to lack the Even 'pretense' construction involving the form in -*hmAn/-(s)sAn* (on which see Pakendorf, 2019). The closest semantic counterpart to TY and Sakha verbal pejoratives is the conative suffix -*sčI*, common to all Even dialects, which conveys that the subject attempts to perform the action, or does not succeed in it, or performs it perfunctorily and unsuccessfully (Šarina and Kuz'mina, 2018: 81). The nominal pejorative -*mkAr* is similar to other Even dialects, where it mostly has the augmentative meaning. Analogously, like all other Even dialects, LKE uses the free word *gud'ej*, often in the diminutive form *gud'ejkie*, to express endearment, as in *aj hurkeːn gud'ejkie* [good boy HPCR] 'a good boy, poor thing' (LKE, 2022). Lexemes related to *gud'ej* are attested in all Tungusic languages (Cincius, 1975: 167–168) in the meanings ranging from 'pretty' all the way to 'dear', 'poor' and the verb 'to love'. Neither of these forms seems to be in any way related to the TY and Sakha structures described here.

5   Contrastive Particles

Sakha exhibits a great number of functional words that originate from various forms of the copula verb *buol-*. We will concentrate on two contrastive particles that seem to be very frequent and have direct equivalents in other languages of the area.

The particle *buollar* goes back to the 3SG conditional form which can head both SS and DS conditional clauses: *buol-TAr* [be-COND(3SG)]. The particle *buollaɣïna* is the grammaticalized DS conditional converb in the 3SG; etymologically, it is a rather transparent nominalisation of *buol-* in -*TAχ* in the old locative case in -*InA*, that is, it is etymologically *buol-TAχ-InA* [be-NMLZ-LOC(POSS.3SG)]. Both *buollaɣïna* and *buollar* stand in postposition to the phrase in their scope and have a number of meanings, still requiring a thorough study. As a rough approximation, we can say that they function as modal particles, conditional conjunctions, contrastive conjunctions ('but' or 'and') and mark reference switch or change of scene ('as far as X is concerned', 'X in its turn', etc.). Although they can have some kind of topicalizing role, they are not equivalent to topic markers, at least in the sense of argument topic, as follows, among other things, from the fact that they are compatible with scene-setting adverbial expressions.

The two particles are roughly synonymous (see Slepcov, 2005: 529–531), and it is not clear what motivates the choice. In any instance, *buollaɣïna* can be used when the nominal it follows is syntactically the subject of the clause. In (41) it is *en*, the subject of *tapta:bakkïn*, and there is no second subject, so the

construction is monoclausal. In other words, although *buollaɣïna* is originally a DS converb, it does not head a dependent clause but has a particle status in this example.

(41)　[My grandmother loves me,]
　　　en　buollaɣïna tapta:-bak-kïn.
　　　2SG　DP　　　　love-NEG-2SG
　　　'and/but you don't.' (Ubrjatova, 1983: 473)

The context is provided in square brackets here. It demonstrates that the subject nominal in the scope of *buollaɣïna* is referentially distinct from (and possibly contrasted with) the semantically comparable item known from the immediately preceding discourse, in this instance, 'my grandmother'. This is the most typical usage of both *buollar* and *buollaɣïna*.

All Even dialects that have been in contact with Sakha have borrowed the Sakha forms *buollar* and *buollaɣïna* in the forms *bǫllar* and *bǫllagana/bǫlla:na*, respectively (see Pakendorf, 2009: 96 for Lamunkhin Even). They have been borrowed by both Yukaghir languages, too, as *bo(:)llər* and *bo(:)lla:nə*. In most cases they function as reference switchers, i.e. they occur in those places in discourse where the attention switches from one referent to another or from one spatio-temporal frame to another, as shown in (42) for TY and in (43) for LKE.

(42)　a.　[Sveta said that she will enter the hospital, in order to work there.]
　　　　　Ta-n　　tude-l　　bo:lla:nə čaɣad'ə-lə　waŋči-nu-mlə,
　　　　　that-ADV 3SG-NOM DP.SA　　work-PRED search-IPFV-OF.3SG
　　　　　aqra:nik.
　　　　　watchman.R
　　　　　'As for him, he is looking for a job, as a watchman.' (TY2009)

　　　b.　[Earlier, when my blood pressure would increase, my head would ache.]
　　　　　Id'e: buolla:nə ičo:-nun-u-ŋ [...]
　　　　　now DP.SA　look-HAB-O-TR.1SG
　　　　　'And now I see ...' (TY2012)

(43)　a.　[My mother was roaming the tundra that year.]
　　　　　Ama-tmar　　bǫllar [...] *adalčị-d-da-n.*
　　　　　father-CONTR DP.SA　　fish-PROG-NONFUT-3SG
　　　　　'As for the father, he was fishing.' (LKE2010)

b. [You all have human souls.]
Min-ŋi   boḷḷa:na ha:ńmų   e-h-ni   bej
1SG-GEN DP.SA   soul.POSS.1SG NEG.AUX-NONFUT-3SG man
bi-he.
be-NEG.PTCP
'And my soul is not human.' (LKE2022)

These substance borrowings are not restricted to TY and LKE, as we have already indicated, but rather belong to the class of contact influences of Sakha that are ubiquitous in the larger zone of its usage. What is of more interest for the present paper is the copies that are structurally based on these Sakha particles but employ the substance material native to TY or LKE.

In TY, the conditional SS converb is formed with the suffix *-rə/-də*, while its DS counterpart is *-ɣənə* (SG) and *-qənə* (PL), with *-l* preceding these suffixes for 1st and 2nd persons and *-də* for 3rd person (see Section 2). The SS conditional converb of the copula *(ŋ)ol-* is *(ŋ)ol-də* [be-COND.SS.CVB], while the 3SG form of DS conditional converb is *(ŋ)ol-də-ɣənə* [be-3-COND.DS.CVB]. These two forms, *(ŋ)oldə* and *(ŋ)oldəɣənə*, perform largely the same function as the direct substance copies *bolla:nə* and *bo:llər*, and have the same positional properties, as shown in (44).

(44) a. [– He has a new lady on his side. He is 73, isn't he? – Yeah, it will be his birthday soon.]
Ta-ŋ   muŋaid'i:-l-l'ə   ŋoldəɣənə [...] taŋnigi-nə   wa:ji
that-ATTR woman-GEN-PERT DP   then-CONTR also
puskijə-n-gunil?
seven-GEN-ten
'– And that woman's (sc. age), then, is also seventy?' (TY2012)

b. [Our parents had a lot to do; the women would prepare firewood, sew clothes, etc.]
Ta-ŋ   keipə-pul ŋoldə e:ru:-l-ŋiń   kewei-nun-ŋi.
that-ATTR man-PL   DP   hunt-NMLZ-DAT go-HAB-INTR.3PL
'And the men would go hunting.' (TY2010)

Similar to the corresponding Sakha particles, *(ŋ)oldə* and *(ŋ)oldəɣənə* do not follow the regular switch-reference rules operating in TY. As mentioned above, the former goes back to a SS converb and the latter to a DS converb, but examples like (44a) demonstrate that *(ŋ)oldəɣənə* can introduce the one and only clausal subject.

The second argument for the grammaticalization of these items as particles comes from their combination with non-subjects. This includes at least some adverbial expressions, which cannot combine with the copula verb (ŋ)ol- when they serve as final predicates (45a), as well as nouns in oblique cases (45b). Such constructions are infrequent, but the fact that they are in principle available suggests that the converbs derived from (ŋ)ol- have lost their verbal status here and have been reanalyzed as unchangeable particles.

(45) a. [When I went to school, I started learning Russian, I began to speak Russian.]
           Tada:t ta-ŋun   ke:je: ŋoldə ta-ŋ   či-pə
           then   that-N.GEN before DP   that-ATTR people-PL
           u:či:-nun-ŋi.
           pass-HAB-INTR.3PL
           'Up to that time, people from expeditions would pass by [and I heard some Russian from them].' (TY2010)

      b. *Paipə-ɣə   la:mə-lə-ŋ   kere:-l, ö:-ɣə*
           woman-LOC dog-PRED-CONTR attack-SF child-LOC
           ŋoldə / ŋoldəɣənə koškə-lə-ŋ   kere:-l.
           DP / DP   cat.R-PRED-CONTR attack-SF
           'The dog attacked the woman and the cat attacked the child.' (TY2010)

In addition, at least (ŋ)oldə can introduce the topicalized external possessor of the subject. Constructions with the left-dislocated external possessor cross-referenced by the 3rd person marker on the possessed subject are quite common in TY, see (46). (47) shows that the external possessor may be followed by (ŋ)oldə, which provides the additional contrastive 'flavour' in this case.

(46) *Tu-ŋ   apanəla: oqol' jo:-gi   jaɣunńa:-nun-i.*
       this-ATTR old.woman always head-3POSS dirty-HAB-INTR.3SG
       'This woman, her head is always dirty.'

(47) a. *Met eńe: oldə čoɣul-gi   əl=möru:-t.*
           1SG mother DP   bone.marrow-3POSS NEG=be.felt-FUT(NEG.3SG)
           'As for my mother, her bone marrow will not be felt.' (Kurilov, 2005: 242, translation adjusted)

b. *Aldaikə   či: oldə ile-pə-gi*
Allaikha people DP   reindeer-PL-3POSS
mə=kudo:-je:-l'əl-ŋi.
AFF=lie-PLRT.INCH-EV-INTR.3PL
'As for the people from Allaikha, their reindeer lied down, apparently.'
(Kurilov, 2001: 35)

Neither in (47a) nor in (47b) is the item in the scope of (ŋ)*oldə* the syntactic subject.

The converbial forms of the copula (ŋ)*ol-* used as contrastive particles and referential switchers are unique to TY, since KY has no comparable constructions. It is beyond doubt that (ŋ)*oldəɣənə* and (ŋ)*oldə* in the relevant usage are a direct structural transfer from Sakha, both in terms of the morphological build-up of the items and in terms of their functions. We have no examples of these forms in Early TY, whereas they were not uncommon in Middle TY (16 instances of (ŋ)*oldə*; 3 instances of (ŋ)*oldəɣənə* in the textual corpus). In Modern TY, the direct substance copies *bo:llər* and *buolla:nə* appear to dominate due to the gradually increasing influence of Sakha (52 instances of *bo:llər*; 27 instances of *bo:lla:nə*), but (ŋ)*oldəɣənə* and (ŋ)*oldə* are still found, especially in the speech of the oldest speakers (6 instances of (ŋ)*oldə*; 3 instances of (ŋ)*oldəɣənə*).

The situation in LKE is less straightforward. In addition to the borrowed *bǫllar* and *bǫlla:na/bǫllaɣana*, two converbial forms of the copula *bi-* indicate referential switch. The first one is the conditional SS converb in *-mi*, *bimi*, illustrated in (48).

(48) a. [And he went to the Yakuts, where he wanted to ask for food.]
Tala bǫlla:na tala bimi enhi   ịla-t-ča.
there DP.SA   there DP   illness stand-RES-PST.PTCP
'And there, there was the disease there.' (LKE, 2022)

b. [They stood close to the camp.]
Nǫŋartan d'ulgi-le-tten   bǫlla bimi bej-il
3PL   front-LOC-POSS.3PL DP.SA   DP   man-PL
ịh-ča-l=ihap   metu-de:-wur   gu:-mi.
arrive-PST.PTCP-PL=DP warn-PURP.CVB-SS.PL say-COND.SS.CVB
'In front of them, men arrived in order to warn them.' (LKE, 2022)

Both examples show that *bimi* is a full-fledged discourse particle and does not function as a SS converb in this use. Both instances of *bimi* are preceded by a locational adjunct, and there is no second subject. In other words, just like with

the TY (*ŋ*)*oldə* and (*ŋ*)*oldəɣənə*, the rules of switch reference do not apply. Interestingly, in (48a), the speaker starts with the borrowing from Sakha, *bǫlla:na*, and then corrects himself with the native LKE form, *bimi*, thus indirectly confirming the full functional equivalence of the two forms. (*Bǫlla* in (48b) is a different particle borrowed from Sakha which carries various modal meanings and is of no direct interest for this paper).

The historical background of *bimi*, however, is more complex than in the TY case. The grammaticalized conditional SS converb of *bi-* of the sort exemplified by LKE is absent in most Even dialects, which only use the Sakha loanwords *bǫllar* and *bǫlla:na* or have no comparable forms at all. This holds true for all the dialects for which we have textual corpora, and also, according to the available evidence, for those for which we rely on published sources (see Section 1). There is, however, one exception: in the Arka-Lower Maya dialect, spoken in the far south-east, on the coast of the Sea of Okhotsk, *bimi* is used as a contrastive, reference-switching device (Malchukov, 1995; see Lavrillier and Matić, 2013 for examples). What is more, this use of *bimi* seems to be pan-Tungusic, as it is also frequent in Evenki (A. Lavrillier, p.c.; examples in Varlaamova and Varlaamov, 2003: 65) and in Udihe (Nikolaeva and Tolskaya, 2001: 865). Similar forms, SS conditional converbs of the copula as contrastive markers, are also attested in other Altaic languages, including, in addition to Sakha, Khalkha Mongolian and Kalmyk (Wälchli, 2022: 1568). The question is, then, whether *bimi* as a contrastive marker in LKE is an inherited feature which was lost in all but in LKE and one further distant dialect of Even, or it has developed in LKE independently, under the influence of the Sakha particle *buollar*. It is striking that the Even dialects from the Middle and Lower Indigirka river, i.e., from the regions from which most LKE speakers moved to their current habitat in the late 18th and early 19th centuries, have no traces of *bimi* in this function. This might speak in favour of the recent copying from Sakha to LKE, but certainly does not count as conclusive evidence. We therefore leave the question of the origin of the LKE *bimi* open.

The other LKE particle goes back to the semelfactive of *bi-*, *bi-hn-*, in the form of the anterior SS converb in -(*r*)*Id'I*, *bihnid'i*. It is illustrated in (49).

(49) *Bi: akmụ*   *bihnid'i e-he-p*   *gu:n-e*
1SG   elder.brother.POSS1SG DP   NEG-NON.FUT-1PL say-NEG.PTCP
"Pe:čə, ečin ịak?"
Petya so   what
'We won't say to my elder brother "Petya, what's up?"' (Šarina and Kuz'mina, 2008: 138)

The form *bihnid'i* cannot be directly connected to any Sakha or TY form and so is probably an independent innovation in LKE.

To summarize, we assume that the morphological make-up and syntactic functions of the TY particles *(ŋ)oldə* and *(ŋ)oldəɣənə* have been copied from Sakha and allow for the possibility that the same holds true for the LKE particle *bimi*. The direction of transfer is almost certainly from Sakha to TY and, possibly, LKE, since the Sakha forms *buollar* and *buollaɣïna* occur in all dialects of Sakha. They are most probably quite old, as the structural parallels in Mongolic, with which Sakha had intense prehistoric contact, seem to suggest. In contrast, these particles are certainly a recent innovation in TY since they are absent from KY and from the earlier TY corpus, while in LKE, as far as we can tell, they very well may be.

6   Differential Object Marking

Differential object marking (DOM) of the type to be discussed in this section is restricted to TY and Sakha. LKE, similar to other Even dialects, has no comparable phenomena and will not be dealt with in this section.

The DOM system in TY is extremely complex. It is affected by various factors such as discourse prominence, the morphosyntactic and semantic type of the object NP, and the person features of the subject and object. This results in the choice between six different case forms, the nominative, three forms of the predicative and two forms of the accusative (see summary in Matić, 2019). In what follows, we only focus on the use of the accusative in the so-called 'neutral sentence constructions', the most frequent and functionally unmarked sentence type. In such constructions, the accusative is required on the object when the subject is 3rd person; otherwise the object stands in the nominative. The accusative occurs in two different morphological forms, the long form and the short form. We will argue that there is a difference between Early and Middle TY, on the one hand, and the Modern TY, on the other hand, as far as the choice of the accusative form is concerned. Essentially, the conditions have changed from morphosyntactic to semantic, to match Sakha.

Before we describe the relevant system of object marking in TY, we need to introduce a number of definitions. First, the TY NPs fall into two classes which we conveniently label *strong* and *weak*, partly following the tradition stemming from Milsark (1974) and de Hoop (1995). In this tradition, NPs are weak or strong depending on a number of syntactic criteria, such as e.g., eligibility for the subject role in an existential clause, the position within the VP and the type of case assignment. While there have been many attempts to find a

common semantic denominator for all weak and all strong NP types (McNally, 2020), there is no consensus on the matter, and it is possible that these two classes are only definable in morphosyntactic terms, with different realizations in individual languages. As will become clear below, our definition of the weak and strong NPs in TY is based exclusively on the grammatical characteristics of the respective class.

The other relevant notion is specificity, which is essentially semantic (perhaps also pragmatic) in nature, although some frameworks maintain that it may be encoded in the functional structure of the phrase. Since the term has been used in a number of partly incompatible senses (for an overview see von Heusinger, 2011), we provide a brief definition applied in this paper. Following the tradition initiated by Fodor and Sag (1982), specificity will be understood as the intensional property of the NPs. Specific NPs refer to particulars or sets of particulars in the world, whereas non-specific NPs have an existential reading and denote a property, without aiming at any particulars. The following classes of NPs are considered non-specific in this sense: (a) narrowly defined non-specific items which trigger existential effects in opaque contexts (*she will try to find a good husband*, sc. whoever that may turn out to be); (b) generics (*she likes elephants*); (c) non-discourse referents, i.e., NPs which denote a type of quality rather than an entity and are often semantically unified with (and loosely incorporated into) the verb to encode institutionalized activities (*he reads newspapers, they slaughter reindeer in winter* and similar; see Mithun, 1984; Behrens and Sasse, 1999). Note that in some approaches, notably in Enç (1991), specificity is identified with partitivity. While we do not subscribe to this view, we will show that partitives and specifics do share a number of formal properties in TY and Sakha.

We start with the description of DOM in Early and Middle TY, and will turn to Modern TY only after the older system has been introduced.

As mentioned above, weak and strong NPs are defined in terms of their internal grammatical properties. In Early and Middle TY, strong NPs comprise possessive NPs, NPs headed by personal names, NPs headed by pertensive nouns and NPs containing an attributive modifier. All other NPs are weak. Possessive NPs are head-final. The free-standing possessor is in the nominative or, less frequently, the genitive, as in *tu-ŋ či:(-n) nime* [this-ATTR people(-GEN) house] 'these people's house'. The possessive third person suffixes *-gi-/-də-/-gin(də)-* either index the free-standing possessor as in *Uppul'ə nime-də-ɣə/nime-gin-ɣə* [Uppulye house-3POSS-LOC] 'in Uppulye's house', or have a pronominal interpretation, e.g., *nime-gi* [house-3POSS] 'his/her house'. Pertensive nouns are derived from nouns, pronouns and a number of other items with the suffix *-l'ə*, as in *met-l'ə* [1SG-PERT] '(what is) mine' and *emd'ə-n-l'ə*

[younger.sibling-GEN-PERT] '(pertaining to) younger sister('s)'. They denote
entities belonging to or in any other way pertaining to the denotation of the
base word. Finally, strong modified NPs comprise only those NPs in which the
modifier is a participle, a non-referential genitive, a quantifier or an adjective;
demonstratives and other determiners play no role in determining the status of
an NP as strong or weak (Matić, 2019). Thus, *amučə sukun* [good.s.PTCP thing]
'nice clothes' or *ki-n köde* [two-GEN man] 'two men' count as strong, whereas
ta-ŋ paipə [that-ATTR woman] is weak. We suspect that strong NPs may be
associated with a particular structural property (a feature located in an NP-
internal position that does not target determiners), but cannot elaborate on
this at the present stage of research.

Strong and weak NPs in TY differ in a number of morphosyntactic behav-
iours (see Matić, 2018; 2019 for a fuller account). For instance, strong NPs,
with one exception, cannot take the overt predicative case or the contrastive-
individuating suffix *-ŋ*, while weak NPs take the predicative in *-lə* and are com-
patible with *-ŋ*. Modified NPs form a special subclass within the strong NPs.
They cannot take *-ŋ*, but they do take the predicative case; however, in contrast
to weak NPs, the predicative is in *-k*.

Crucially for this paper, the strong/weak distinction in Early and Middle
TY affects the choice of the accusative case form of the object. First, strong
unmodified NPs take the accusative in the long form *-ɣənə*. This constraint
has an exceptionless categorical status. Second, weak NPs can take the short
accusative in *-lə* or the long accusative in *-ɣənə*, but the former is significantly
more frequent: 233 (95%) out of 244 tokens in the corpus. This contrast is illus-
trated in (50).

(50) a. strong NP (possessive)
         Qaiče:-təgə aru:-də-ɣənə   mə=möri-na:-m.
         bear-AUG   language-3POSS-ACC AFF=hear-INCH-TR.3SG
         'She began to understand the bear's language.' (Kurilov, 2005: 396)

     b. strong NP (pertensive)
         Keipə-l-l'ə-ɣənə   wa:j mə=jömgijə-ń-i:-nun-ŋa:.
         man-GEN-PERT-ACC too AFF=tassel-PROPR-TR-HAB-TR.3PL
         'They attach tassel to men's [coats] too (lit. to what pertains to men).'
         (Kurilov, 2001: 128)

     c. weak NP
         Paipə-lə   laujə-ɣə   kere:-s-ŋa:.
         woman-ACC water-LOC descend-CAUS-TR.3PL
         'They threw the woman into the water.' (Kurilov, 2005: 370)

Third, strong modified NPs display a variable behaviour with respect to the form of the accusative case, allowing for both *-ɣənə* and *-lə*, with different frequencies. The tendency is for them to take the accusative in *-ɣənə* more frequently than the accusative in *-lə*. This tendency is somewhat weaker than the previous one: out of 75 tokens in the corpus, 53 (71%) objects bear *-ɣənə*. We cannot determine under which circumstances the speakers of Early and Middle TY chose *-lə* instead of *-ɣənə* on strong modified NP, and the best we can say is that there was more than a chance probability for a strong NP object with a modifier to be encoded with *-ɣənə*.

What is certain is that the referential status of the NP in terms of specificity was not a relevant factor. This can be seen, for instance, in the following pair of examples. Non-specific objects of habitual predicates can be encoded with either *-ɣənə* or *-lə*, depending on whether the object is a strong NP (with a modifier, as in (51a)) or a weak NP (51b).

(51) a. *Lajemu-i*   *köde-ɣənə mə=puń-nun-u-m.*
          stay.behind-s.PTCP man-ACC AFF=kill-HAB-TR.3SG
          'He used to kill people that stayed behind.' (Kurilov, 2005: 398)

      b. *Talau-lə*   *nime-ŋiń   tono-rələk   puń-nun-u-m.*
          wild.reindeer-ACC house-DAT drive-SS.ANT.CVB kill-HAB-O-TR.3SG
          'He would drive wild reindeer home and kill them.' (Kurilov, 2005: 128)

In both instances, the object is non-specific, since it does not refer to a particular set of entities, but the form of the accusative differs. The choice of the accusative suffix is determined exclusively by the structure of the NP: modified NPs (strong) take *-ɣənə* and non-modified NPs (weak) take *-lə*, while the specificity of the object plays no role in this choice.

So, the variation in the accusative form in Early and Middle TY is basically dependent on the formal morphosyntactic properties of the object NP. This kind of system is not particularly frequent in the languages of the world, as far as we can tell, but partly similar cases have been reported e.g., for Sidaama (Cushitic) by Kawachi (2020), and for Mari and Udmurt (Uralic) by Serdobolskaya (2015, 2020). Note, however, that DOM in Uralic is asymmetric, that is, unmodified NPs take no accusative at all, while in TY (and Sidaama) we are dealing with the choice between two different forms of the overt accusative marker.

Turning now to Modern TY, it works in a somewhat different way. The choice of the accusative form for most types of strong NPs (namely, possessives, personal names and pertensives) has not changed: they can only take the

accusative in *-ɣənə*, same as in Early and Middle TY. Changes are observable with weak NPs and, most notably, with strong modified NPs. This is revealed in the basic statistics: (a) weak NPs still take the *-lə* accusative more often, but the dominance of this form is not as robust as it used to be (85 %, i.e., 205 out of 241 tokens in our Modern TY corpus, compared to 95 % in the earlier corpus); (b) strong modified NPs do not dominantly take the accusative in *-ɣənə* as in the earlier stages of TY, but rather in *-lə* (69 %, i.e., 45 out of 65 tokens in the corpus, compared to 29 % in the earlier corpus). This tendency is also reflected in the elicitation with native speakers, who practically always accept forms in *-lə* with these two NP types, while forms in *-ɣənə* are often rejected or are only accepted with certain marked interpretations.

There are indications both in the corpus and in the native speakers' judgments that these statistical shifts have to do with an advanced reinterpretation of the distinction between *-ɣənə* and *-lə*. We have seen above that the original opposition pertains to two morphosyntactically defined classes of NPs. In Modern TY, the distinction, at least with weak NPs and with strong modified NPs, seems to have been reinterpreted as a purely semantic one: *-lə* mostly combines with non-specific NPs, while *-ɣənə* is the first choice for specific NPs.

Example (52) illustrates the typical use of the accusative in *-lə* with a weak (*taŋ či:lə*) and a strong modified NP (*eleŋńəi či:lə*).

(52) [In the past, the Yukaghirs used to work hard, though some were quite lazy. Asked if these were tolerated by everyone, the speaker answers:]
  Ta-ŋ   *či:-lə,*   *eleŋńə-i*   *či:-lə*   *wa:ji lögite:-nun-ŋa:.*
  that-ATTR people-ACC lazy-S.PTCP people-ACC also feed-HAB-TR.3PL
  'They would also feed those people, the lazy people.' (TY2009)

In both cases, irrespective of the status of the NP as weak or strong, the object does not denote a specific group of individuals but rather a kind of humans, the lazy type. This qualifies both NPs as non-specific and requires the choice of *-lə*. Note again that demonstratives (here: *taŋ*) have no influence on the choice of the accusative suffix. We take this to indicate that the semantic feature which has come to become relevant is not definiteness (however one chooses to define it) but rather specificity, in the sense outlined above. This can also be seen in the use of the accusative in *-ɣənə*, which regularly occurs when the object is intended to pick out a specific referent or a set of referents, as illustrated in (53a), with a strong modified NP, and in (53b), with a weak NP. In the former, it is a specific (and definite) knife for sewing that is meant, while in the latter, a specific fur hat is referred to. In both cases, the object is marked with the accusative in *-ɣənə*.

(53) a. [Describing the tools the speaker will take with her when she goes
          roaming and showing individual items:]
          Ta:t ana:n qad'ir čoɣojə-de:-k   l'e-l [...] *adu-ŋ*
          so   very DP   knife-DIM-PRED   be-SF   this-ATTR
          ind'e:-nu-bə   *neme tite čoɣojə-ɣənə teńi kudere:-nun-ŋa:.*
          sew-IPFV-HAB.NMLZ   what like knife-ACC   here put-HAB-TR.3PL
          'And this, there is a little knife, and they put it here, this knife for sewing
          and similar stuff.' (TY2009)

      b. *Larisa man-i   met-i-ń,   malaqa:j-ɣənə* [...]
          Larisa say-INTR.3SG 1SG-O-DAT fur.hat-ACC
          ularsï-bït.
          borrow.SA-PST.PTCP.SA(3SG)
          'Larisa told me that she had borrowed a fur hat.' (TY2010)

The distinction along the lines of specificity in the choice of the accusative
form is confirmed and somewhat refined by the comments and judgments of
our consultants, the speakers of Modern TY. The accusative in *-ɣənə* is rejected
across the board if the object NP is generic (54a) or quality-like (54b).

(54) a. **Leweimə   jo:rpurə   talau-ɣənə   puń-nun-ŋa:.*
          in.summer in.tundra wild.reindeer-ACC kill-HAB-TR.3PL
          intended reading: 'They used to kill wild reindeer in the tundra in sum-
          mer.'

      b. **Ama: čiŋičədiń nonɣə-ɣənə   lau-nun-u-m.*
          father in.night   tobacco-ACC drink-HAB-O-TR.3SG
          intended reading: 'Father used to smoke (lit. "drink tobacco") all night.'

However, there is an apparent and systematic quirk here: if an NP can be con-
strued as semantically partitive, it normally takes *-ɣənə*, irrespective of its speci-
ficity or its morphosyntactic status as a weak or a strong modified NP. This is
often the case with restrictive modifiers which imply that the denotation of the
NP belongs to a set, such that 'big dog', for instance, implies that there are also
smaller dogs and thus induces the reading that big dogs are part of the set of
dogs of different sizes. According to the comments of our consultant, the use
of *-ɣənə* instead of *-lə* in (55) suggests that the man was not looking for just any
kind of dog, but specifically for a big one, which induces an implicit partitive
relation.

(55) *Keipə čama la:mə-ɣənə waŋči-nu-m,   tada:t neme-ŋolləŋ*
     man big   dog-ACC   search-IPFV-TR.3SG then what-O.CONTR
     əl=ńidannu.
     NEG=buy(NEG.3SG)
     'A man was looking for a big dog (sc. to buy), and then he didn't buy any-
     thing.'

Although the NP 'big dog' is non-specific in this sentence, its partitivity is suf-
ficient to trigger the choice of *-ɣənə* over *-lə*. So partitivity works similarly to
specificity.

    As indicated above, the reason why partitive NPs often pattern together
with modified NPs is that partitive readings arise out of contrast induced by
the restrictive modifier, as in (55). The partitive interpretation of *ɣənə*-marked
objects is also possible in the absence of a modifier, provided enough con-
trastive context is available. In (56) the '(increase of) 1000 (Rubles)' is explicitly
contrasted with the larger pension increase mentioned in the previous sen-
tence, evoking a superset of pension increases of different sizes.

(56) [People who had large salaries will get an increase in their pension
     amounting to a couple of thousand Rubles.]
     Ta-n   l'uku-jə   zarpla:tə-l-l'əl-d'ə   či:,   tittə-l'ə
     that-ADV small-S.PTCP salary.R-PROPR-EV-2PTCP people 3PL-PERT
     tisəčə-ɣənə   əl=pelu:ji   daɣanə.
     thousand-ACC NEG=reach(NEG.3SG) probably
     'Those who had small salaries, their (sc. increase) probably won't reach a
     thousand (sc. Rubles).' (TY 2009)

We can conclude that, for a weak NP/strong modified NP to take the long
accusative in *-ɣənə*, it has to be either specific or partitive, and the other way
round, the precondition for the use of the short accusative in *-lə* is the lack of
specificity or partitivity.

    The semantic reinterpretation of the Modern TY distinction between the
accusative in *-lə* and *-ɣənə*, which we sketched above, is confirmed by a small-
scale counting of the correlation between specificity/partitivity and the choice
of the suffix. We chose an arbitrary set of 100 transitive clauses from the
Early/Middle TY corpus and from the Modern TY corpus each and counted the
share of non-specific objects in both. In Early/Middle TY, there are 28 non-
specific accusative objects, and the proportion of *-lə* and *-ɣənə* among them
is 16:12 (57% vs. 43%), i.e., roughly equal. In Modern TY, we counted 43 non-
specific objects, all but three (93%) of which are encoded with *-lə*.

Let us summarize. In Early/Middle TY, the distribution of the accusative markers *-lə* and *-ɣənə* is a function of the morphosyntactic class to which the object NP belongs. In Modern TY, this has not changed for most types of strong NPs, but there has been a change in the factors determining the choice of *-lə* or *-ɣənə* with weak NPs and strong modified NPs: the distinction has been reinterpreted as a semantic one, with *-lə* being attached to non-specific or non-partitive objects and *-ɣənə* to those that are either specific or partitive.

We propose that this subtle shift in the factors regulating DOM was triggered by the contact of the TY speakers with Sakha. Sakha, like most Turkic languages (Enç, 1991; Kizilkaya et al., 2022, among many others), has a DOM system in which one option for object NPs is to be encoded by the nominative, and the other by the accusative in *-(n)I*, as illustrated in (57), taken from Vinokurova (2005: 322).

(57) a. *Min saharχaj sibekki ürgeː-ti-m.*
       1SG yellow   flower pick-PST-POSS.1SG
       'I picked a yellow flower/some yellow flowers.'

     b. *Min saharχaj sibekki-ni   ürgeː-ti-m.*
        1SG yellow   flower-ACC pick-PST-POSS.1SG
        'I picked the/a specific yellow flower.'

As can be gleaned from this example, there is an interpretive difference between two types of object marking. There have been a number of attempts to define it, ranging from information structure to 'relevance of referent identification' (see Pakendorf, 2007: 142 ff. for an overview). We follow Vinokurova (2005: 195 ff., 322 ff.), Baker and Vinokurova (2010), Pakendorf (2007: 142) and others in taking some notion of specificity to be the major determinant of Sakha DOM. In what follows we explore some of its aspects, paying special attention to the parallels with Modern TY.

There is one feature that Sakha has in common with both the older stages of TY and Modern TY: according to Ubrjatova (1995: 22 ff.) and Ebata (2019), possessive NPs and personal names always take the accusative in *-(n)I*, never the nominative, just like the respective classes always take the long accusative *-ɣənə* in TY.

(58) a. *Min iliː-bin   suː-n-nu-m.*
       1SG hand-ACC.POSS.1SG wash-REFL-PST-1SG
       'I washed my hands.' (Ebata, 2019: 74)

b. *Sikïna* [...] *Künnej-i   killer-er.*
Sykyna   Künnej-ACC bring.in-PRS(3SG)
'Sykyna brought Künnej in.' (Ubrjatova, 1995: 23)

In all other respects, the features reflected in Sakha DOM are similar to Modern TY, but not to Early/Middle TY. The accusative in -(*n*)*I* is used for specific objects, including definites (59a) and specific indefinites (59b), and is in this respect parallel to the Modern TY accusative in -*γənə*. The nominative is employed for the non-specific NPs, including non-specifics proper (60a), generics (60b) and quality-denoting NPs (60c), and thus resembles the Modern TY short accusative in -*lə*.

(59) a. *Umuhaχ-χa   ki:r-en-ner* [...] *arï:-nï   ijj-e*
milk.cellar-DAT enter-PFV.CVB-PL butter-ACC carry-IPFV.CVB
bar-dï-lar.
go-PST-3PL
'They entered the milk-cellar and took away the butter.' (Pakendorf, 2007: 121)

b. *Üle-tin   ihin dien mede:l-i   il-bit-im.*
work-GEN for SUB medal-ACC take-PST.PTCP-POSS.1SG
'I received a medal for my work.' (Pakendorf, 2007: 143)

(60) a. *Bi:r eder   uol üle   kördü:-r.*
one young boy work search-PRS(3SG)
'A young boy is looking for work.' (https://m.vk.com/wall-241920_2284)

b. *Kï:s oγo   taptï:-r.*
girl child love-PRS(3SG)
'The girl loves children.' (https://vk.com/wall-68471778?offset=1700)

c. *U: bas-ta.*
water scoop-PST.POSS.3SG
'He drew water ("he water-drew").' (Ubrjatova, 1995: 23)

Partitive readings tend to trigger the use of the accusative in -(*n*)*I*. This is especially patent with quantified NPs, since a quantifiable amount of a substance or entities implies a superset to which the substance/entities belong (61).

(61) *Bihigi üs   ku:l haχar-ï   il-li-bït.*
      1PL   three sack sugar.R-ACC buy-PST-POSS.1SG
      'We bought three sacks of sugar.'

The accusative is also common with modified NPs if the modifier is construable as implying a superordinate set (62a), similar to the Modern TY accusative in *-γənə*. If the modifier is not meant to imply the existence of a superset, the nominative can also be used (62b), again paralleling the Modern TY use of the accusative *-lə*. In addition, the sentences in (62) illustrate another parallelism: non-specific NPs can take the accusative if they are semantically partitive.

(62) a. *Ulaχan ït-ï   kördü:-r*
         big   dog-ACC search-PRS(3SG)
         'He is looking for a big dog (not e.g., small).'

      b. *Ulaχan ït   kördü:-r*
         big   dog search-PRS(3SG)
         'He is looking for a big dog (any dog, as long as it's big).'

So, there is a remarkable similarity in the distribution of the two forms of the accusative in Modern TY and the nominative/accusative encoding of the objects in Sakha. To make our point clearer, we provide a simplified representation of the relevant contrasts in the form of a table (Table 3). It demonstrates the classes of NPs correlated with the types of object marking in Early/Middle TY, Modern TY and Sakha. As can be seen here, the conditions on the choice of the object form in Modern TY match those in Sakha.

It is tempting to ascribe the change observable between earlier stages of TY and Modern TY to the influence from Sakha. We take it that the shift from the morphosyntactically conditioned choice of the case form to a largely semantically conditioned type has been triggered by the contact with Sakha, such that the Modern TY speakers fluent in Sakha have copied the principles of the distribution of nominative and accusative objects and applied them to the distinction between two accusative suffixes. The long form of the TY accusative (*-γənə*) was interpreted as being functionally equivalent to the Sakha accusative, and the short form (*-lə*) was interpreted as being functionally equivalent to the Sakha nominative. The already existing identity of some of the distributional criteria (possessive and other strong NPs had already patterned identically) might have facilitated the process of grammatical replication.

TABLE 3 TY and Sakha object marking

Early/Middle TY	Modern TY		Sakha	
strong (poss., name)	strong (poss., name)	*-ɣənə*	poss., name	acc.
strong modified	spec.	*-ɣənə*	spec.	acc.
weak	non-spec.	*-lə*	non-spec.	nom.

7 Discussion

This paper has argued that two languages of the Lower Kolyma tundra, TY and LKE, have undergone a number morphosyntactic changes in the course of only a few generations. For TY, this is shown through the comparison between the earlier recordings of the language as spoken by the people born between the 1880s and the 1920s and our fielddata, which reflect the language of the speakers born after 1940, as well as through comparison with the related KY. For LKE, which has not been documented before except for Šarina and Kuz'mina (2018), the evidence is based on the comparison with other Even dialects, from which the speakers of LKE have separated in the course of the 19th century. We proposed that the source of the relevant changes is the contact these two languages had with Sakha. These changes manifest themselves in the transfer of grammatical meanings and, in most cases, also replicating the formal make-up of the original Sakha patterns. This is true of the TY future imperative, two types of necessitive constructions, contrastive particles, the reinterpretation of DOM, the pejorative and possibly hypocoristic morphology. LKE shows fewer contact phenomena of this kind; they include three types of necessitive constructions and possibly the contrastive *bimi*. This may be an artefact of the larger corpus and the better attestation of TY, so it is possible that future research will unveil further contact-induced structures in LKE.

In order to better understand our findings, we provide a very brief outline of the complex ethnic history of the Lower Kolyma area (see Pupynina and Aralova, 2021; Matić, this volume; Pupynina and Vakhtin, this volume, for fuller accounts, statistics and references).

The Lower Kolyma tundra was originally inhabited by the Yukaghirs; the Evens started moving in the region in the late 18th and settled down permanently in the early 19th century. The two groups entered complex economic and marital alliances with each other (Lavrillier and Matić, this volume), and

there were whole clans that switched from one language to the other. Both processes resulted in wide-spread symmetrical bilingualism. The Sakha inhabited the southern fringe of the tundra, and some Evens and Yukaghirs, especially in the late 19th/early 20th century, were able to speak Sakha due to trade and other relations. The situation changed with the advent of the Soviets: all ethnic groups were employed in the newly established collective farms, which led to mixed marriages and increased multilingualism, not only among the Yukaghirs and Evens but also among the Sakha, many of whom now spoke TY and LKE, sometimes even as their primary languages. At the same time, Sakha gradually began to function as a prestige language, due to its role in administration and education in the boarding schools. By 1950s, everybody was fluent in the now fully established lingua franca, Sakha, which has remained the major language of inter-ethnic and official communication to these days, while the TY-LKE bilingualism decreased to the point that only a few older individuals still claim command of both of these languages.

Most of the morphosyntactic changes we described are likely to set off in the beginning of the 20th century, at the time when both the numbers of TY and LKE speakers of Sakha and the numbers of Sakha speakers of TY and LKE increased, and intensified with the growth of the influence of Sakha in the 1930s and 1940s. They are all traceable to the speech of the people born after 1900 or 1910. These people, as we indicated above, participated in two parallel processes that were unfolding at that time: the increase of the symmetric bilingualism among the Sakha, TY and LKE speakers in collective reindeer farms, and the rise of the prestige of Sakha. In practice, this means that the agency in the copying process can be ascribed both to those Sakha speakers that became trilingual (Sakha, LKE, TY) and to the speakers of TY and LKE that were increasingly using Sakha in everyday life. These two possibilities are not mutually exclusive. In a situation of permanent and intense multilingual communication in reindeer herding units and boarding schools, the pressure to adapt the linguistic systems of LKE and TY was intense enough to warrant changes coming from both L1 and L2 speakers. It is quite possible, indeed plausible, that, for instance, a Sakha speaker married to an Even or Yukaghir and working as a reindeer herder copied his/her native structures from Sakha into LKE and/or TY, and that the LKE/TY speakers adopted and reinforced them, driven by their own increasing fluency in Sakha. The opposite direction is also conceivable, with LKE/TY speakers introducing a Sakha feature which then gets reinforced by the Sakha speaking LKE/TY. Obviously, these developments of TY and LKE were only reinforced when Sakha became a fully dominant language of all inhabitants of the Lower Kolyma tundra in the 1950s.

One exception to this scenario is the change in the functioning of DOM in TY, which must be a more recent development, noticeable only with the speakers born in the 1950s and later. It falls in the time when Sakha has become fully dominant as the language of communication not only in official and school domains, but also in the everyday life. LKE and TY speakers of the generations born after 1950s spoke Sakha during the traditional activities such as reindeer herding and fishing, and increasingly also within the family. There were no more L1 Sakha speakers who spoke TY. Thus, the agency of change in this case certainly lies with TY speakers alone, who copied the pattern of the dominant language into their L1.

How do these changes fit into the current theories of language contact? One of the most influential approaches that take into account the sociolinguistic factors is based on the work of Thomason and Kaufmann (1988) and Van Coetsem (1988), see also Matras (2009: 236 ff.). It differentiates two types of contact situations: (a) borrowing (or 'recipient language agentivity'), when elements from another language are incorporated into the speakers' native language, and (b) substratum influence (or 'imposition', 'source language agentivity'), when the native language structures influence the second language. In the former case, both languages continue to exist independently; the typical outcome is substance copying, especially in the lexicon, but pattern copying also occurs, as in the cases of calquing and metatypy described by Ross (2007). In the latter, L1 is often ousted by L2, leaving only substratum traces, mostly with little substance copying and abundant pattern copying.

The other, more recent approach, initiated in Muysken's work (Muysken, 2000, 2010, 2013), generalizes the notion of the orientation of change, such that contact can be (a) L1-oriented, (b) L1/L2-oriented and (c) L2-oriented (we ignore the fourth possible type, based on putative universal principles). Somewhat simplified, in L1-oriented situations, L1 has a high prestige and its speakers have low proficiency in L2. In the L1/L2-oriented type of contact, L1 and L2 are typologically similar, and there is low degree of social normativity. In L2-oriented situations, it is L2 that has high prestige and L1 speakers are fluent in it. These situation types correspond to certain types of outcomes, such that, at the syntactic level, L1-oriented contact results in the changes in frequency of the patterns already present in L1. In L1/L2-oriented contact, there is syntactic levelling of both languages, while in L2-oriented situations L1 undergoes a wholesale syntactic remodelling after the patterns of L2, similar to Ross' metatypy (Ross, 2007).

The change in the distribution of the TY accusative suffixes clearly falls in the group of Thomason and Kaufmann's pattern borrowing or Van Coetsem's recipient language agentivity, and also squarely fits into the category of Muysken's

L2-oriented contact. The speakers of TY (L1) are perfectly fluent in the prestigious L2 language, Sakha, and reinterpret the existing pattern of object marking on the model of L2.

All other instances of morphosyntactic copying we were able to identify are more difficult to classify. The situation we reconstruct includes both the transfer from L1 to L2 (Sakha speakers to LKE/TY) and copying from L2 to L1 (LKE/TY speakers from Sakha to LKE/TY), which take place simultaneously and possibly reinforce each other. This is due to an exceptional type of situation between 1930s and late 1950s in which both symmetrical (Sakha-LKE/TY in reindeer collective farms) and asymmetric (prestige of Sakha in administration and schools) multilingualism existed in parallel. No matter what categorization we apply, the TY/LKE copies from Sakha do not fit, since they are both L1 an L2-oriented, with both source and recipient language agency. Note that the type of change, pattern copying (via calquing, as per Ross, 2007, or via contact-induced grammaticalization, as per Heine and Kuteva, 2005), is identical to the type of change that is clearly caused by substrate influence or by L2-oriented language contact.

The type of sociolinguistic situation in which most constructions investigated in this paper came into being is admittedly quite rare, but it does illustrate two major problems of many theories of language contact. First, the classification of possible contact situations into a couple of clear-cut categories is a very difficult endeavour, given the number of potentially relevant variables which must be taken into account. We may add the type of situation with the agency of both the recipient and the source language, L1 and L2-oriented at the same time, to account for the recent changes in LKE and TY, but then, what guarantees that the theory will not have to introduce further situation types for every new case of language contact? Second, the outcome of contact does not stand in a one-to-one relationship with the process of change and the sociolinguistic situation through which a particular development took place. Copied morphosyntactic features of the type illustrated in this paper can stem from borrowing, but also from substratum influence, they can be a product of both a L1 and a L2-oriented process. Without knowing the historical facts, we cannot determine the origin of a contact feature for certain.

Finally, there is an additional issue here to which we cannot offer a solution at this stage. Strikingly, it was always Sakha that served as a model in all contact-induced morphosyntactic changes we have detected so far. With the vaguely possible exception of the TY hypocoristic *-ködi*, to which the contact between TY and LKE might have also contributed, we were unable to find clear instances of the mutual influence of these two languages in the area of morphosyntax. This is unexpected in view of the close contact both languages had

for over two centuries, more so since both TY and LKE display a huge amount of lexical borrowings from each other, including such fundamental concepts as kinship terms or body parts (Lavrillier and Matić, this volume; Šarina and Kuz'mina, 2018; Kurilova, 2014; Pupynina and Aralova, 2021). We would equally expect some kind of morphosyntactic levelling of the L1/L2 type in Muysken's typology, especially given the typological closeness of LKE and TY and the egalitarian type of bilingualism, but we do not find it in the grammars of these two languages. Further research might uncover phenomena that have escaped our attention, but for the time being we remain agnostic on this point.

Acknowledgments

Glossing Abbreviations

ACC	accusative	DIR	directive
ADD	additive	DP	discourse particle
AFF	affirmative	DS	different-subject
ADV	adverbial	EV	evidential
ANT	anterior	FUT	future
ATTR	attributive	GEN	genitive
AUG	augmentative	IMP	imperative
AUX	auxiliary	INCH	inchoative
COND	conditional	INTR	intransitive
CONTR	contrastive	IPFV	imperfective
CVB	converb	JUS	jussive
DAT	dative	HAB	habitual
DES	desiderative	HPCR	hypocoristic
DIM	diminutive	LOC	locative

NEC	necessitive	PROGR	progressive
NEG	negation	PROPR	proprietive
NMLZ	nominalizer	PROSP	prospective
NOM	nominative	PTCP	participle
NONFUT	non-future	PURP	purposive
O	object	RES	resultative
OF	object focus	SEQ	sequential
PEJ	pejorative	S	subject
PERT	pertensive	SF	subject focus
PFV	perfective	SG	singular
PL	plural	SIM	simultaneous
PLRT	pluractional	SS	same-subject
POSS	possessive	SUB	subordinator
POT	potential	TR	transitive
PST	past	V	verbalizer, verbal
PRED	predicative	O	epenthesis

References

Ackerman, Farrell and Irina Nikolaeva. 2013. *Descriptive Typology and Linguistic Theory: A Study in the Morphosyntax of Relative Clauses.* Stanford: CSLI.

Aikhenvald, Alexandra Y. 2010. *Imperatives and Commands.* Oxford: Oxford University Press.

Baker, Mark C. and Nadya Vinokurova. 2010. Two modalities of case assignment: case in Sakha. *Natural Language and Linguistic Theory* 28: 593–642. DOI: https://doi.org/10.1007/s11049-010-9105-1.

Behrens, Leila and Hans Jürgen Sasse. 1999. Qualities, Objects, Sorts, and Other Treasures: GOLD-digging in English and Arabic. *Arbeitspapier Nr. 35 (NF).* Cologne: Institut für Sprachwissenschaft.

Böhtlingk, Otto. 1964 [1851]. *Über die Sprache der Jakuten.* The Hague: Mouton & Co.

Cincius, Vera I. 1947. *Očerk grammatiki èvenskogo (lamutskogo) jazyka. Čast' 1-ja: Fonetika i morfologija* [*A grammar sketch of Even. Part 1: Phonetics and Morphology*]. Leningrad: Gosudarstvennoe Učebno-Pedagogičeskoe Izdatel'stvo Ministerstva Prosveščenija RSFSR.

Cincius, Vera I. (ed.). 1975. *Sravnitel'nyj slovar' tunguso-man'čžurskix jazykov* [*A comparative dictionary of the Tungusic-Manchu languages*]. Vol. 1. Leningrad: Nauka.

Diewald, Gabriele and Elena Smirnova. 2010. *Evidentiality in German.* Berlin: De Gruyter.

Dutkin, Xristofor I. 1995. *Allaixovskij govor èvenov Jakutii* [*The Allaixa dialect of the Evens of Yakutia*]. St. Petersburg: Nauka.

Dutkin, Xristofor I. and Marina X. Beljanskaja. 2009. *Tundrennyj dialekt èvenskogo jazyka* [*The Tundra dialect of Even*]. St. Peterburg: Bel'veder.

Ebata, Fuyuki. 2019. Regularity and obligatoriness in Sakha (Yakut): A contrastive analysis with Tyvan. *Asian and African languages and linguistics* 13: 67–80.

Enç, Mürvet. 1991. The semantics of specificity. *Linguistic Inquiry* 22(1): 1–25.

Evans, Nicholas. 2007. Insubordination and its uses. In Irina Nikolaeva (ed.), *Finiteness: Theoretical and Empirical Foundations*, 366–431. Oxford: Oxford University Press.

Filipov, Gavril G. 2015. Modal'nye formy pričastij na *-Iax* i *-Ia* v jakutskom jazyke [The modal forms of the Sakha participles in *-Iax* and *-Ia*]. *Vestnik SVFU* 4(48): 109–120.

Fodor, Janet Dean and Ivan A. Sag. 1982. Referential and quantificational indefinites. *Linguistics and Philosophy* 5(3): 355–398.

Grossman, Eitan and Stéphane Polis. 2014. The pragmatics of subjectification: the emergence and modalization of an Allative Future in Ancient Egyptian. *Acta Linguistica Hafniensia* 46(1): 25–63.

Illarionov, Vasilij V. and Julija N. D'jakonova (eds.). 2008. *Jakutskie narodnye skazki* [*Sakha Folktales*]. Pamjatniki fol'klora Sibiri i Dal'nego Vostoka 27. Novosibirsk: Izdatel'stvo instituta arxeologii i ètnografii SO RAN.

Janhunen, Juha. 2013. The Tungusic languages: A history of contacts. In Juwon Kim and Dongho Ko (eds.), *Current Trends in Altaic Linguistics: A Festschrift for Professor Emeritus Seong Baeg-in on his 80th Birthday*, 17–60. Seoul: Altaic Society of Korea.

Jochelson, Vladimir. 1900. *Materialy po izučeniju jukagirskogo jazyka i fol'klora, sobrannye v Kolymskom okruge* [*Materials for the study of the Yukaghir language and folklore collected in the Kolyma district*]. St. Petersburg: Akademija Nauk.

Jochelson, Woldemar. 1905. Essay on the grammar of the Yukaghir language. *Annals of the New York Academy of Sciences* 16 (2): 97–152.

Jurafsky, Daniel. 1996. Universal tendencies in the semantics of the diminutive. *Language* 72(3): 533–578.

Heine, Bernd and Tania Kuteva. 2005. *Language Contact and Grammatical Change*. Cambridge: Cambridge University Press.

Kawachi, Kazuhiro. 2020. Sidaama. In Rainer Vossen and Gerrit J. Dimmendaal (eds.), *The Oxford Handbook of African Languages*, 543–552. Oxford: Oxford University Press.

Kizilkaya, Semra, Zarina Levy Forsythe, and Klaus von Heusinger. 2022. Affectedness and differential object marking in Turkish and Uzbek. *Linguistics* 60(6): 1907–1941. DOI: https://doi.org/10.1515/ling-2020-0216.

Kurilov, Gavril N. 2001. *Jukagirsko-russkij slovar'* [*Yukaghir-Russian dictionary*]. Novosibirsk: Nauka.

Kurilov, Gavril N. (ed.). 2005. *Fol'klor jukagirov* [*Yukaghir folklore*]. Pamjatniki fol'klora narodov Sibiri i Dal'nego Vostoka 25. Moscow and Novosibirsk: Nauka.

Kurilov, Gavril N. 2006. *Sovremennyj jukagirskij jazyk* [*The modern Yukaghir language*]. Jakutsk: Ofset.

Kurilov, Nikolaj N. and Cecilia Odé. 2012. *Tales from my Mother Anna Kurilova*. Amsterdam: Pegasus.

Kurilova, Samona N. 2014. Tematičeskie gruppy tungusskix leksičeskix zaimstvovanij v severo-jukagirskom jazyke [Thematic groups of Tungusic lexical borrowings in Northern Yukaghir]. *Filologičeskie Nauki* 12(42): 101–105. www.gramota.net/materials/2/2014/12-2/25.html.

Kurilova, Samona N. 2020. Jakutizmy v jukagirskom jazyke. In Ol'ga N. Bil' (ed.), *Sovremennaja Filologija*, 77–107. Petrozavodsk: Novaja Nauka.

Krejnovič, Eruxim A. 1958. *Jukagirskij jazyk* [*The Yukaghir language*]. Moscow: Nauka.

Krejnovič, Eruxim A. 1982. *Issledovanija i materialy po jukagirskomu jazyku* [*Yukaghir studies and materials*]. Leningrad: Nauka.

Lavrillier, Alexandra and Dejan Matić. 2013. *Evedi ńimkar. Evenskie nimkany* [*Even epic stories*]. Fürstenberg/Havel: Kulturstiftung Sibirien.

Lavrillier, Alexandra and Dejan Matić, this volume. Society and language contact in the Even kinship terminology.

Lebedev, Vasilij D. 1978. *Jazyk èvenov Jakutii* [*The language of the Evens of Yakutia*]. Leningrad: Nauka.

Lebedev, Vasilij D. *1982. Oxotskij dialekt èvenskogo jazyka* [*The Oxotsk dialect of Even*]. Leningrad: Nauka.

Malchukov, Andrej. 1995. *Even*. München: LINCOM Europa.

Malchukov, Andrej. 2001. Imperative constructions in Even. In Viktor Xrakovskij (ed), *Typology of Imperative Constructions*, 159–180. München: LINCOM Europa.

Malchukov, Andrej. 2008. *Sintaksis èvenskogo jazyka: semantičeskie, strukturnye, kommunikativnye aspecty* [*The syntax of Even: Functional, structural, discourse aspects*]. St. Petersburg: Nauka.

Maslova, Elena. 2001. *Yukaghir Texts*. Wiesbaden: Harrassowitz.

Maslova, Elena. 2003a. *Tundra Yukaghir*. München: Lincom Europa.

Maslova, Elena. 2003b. *A grammar of Kolyma Yukaghir*. Berlin: Mouton de Gruyter.

Matić, Dejan. 2018. On differential predicative case marking in Tundra Yukaghir. In Julia Marie Ange and Marri Amon (eds.), *Oralité, information, typologie. Hommage à M.M. Jocelyne Fernandez Vest*, 365–398. Paris: L'Harmattan.

Matić, Dejan. 2019. A case for syntactic case: The accusative in Tundra Yukaghir. *Morphology* 29(3): 337–383.

Matić, Dejan. 2020. Reflexives, reciprocals, and intensifiers in Even: An exercise in Tungusic dialectology. *International Journal of Eurasian Linguistics* 2(2): 244–285.

Matras, Yaron. 2009. *Language Contact*. Cambridge: Cambridge University Press.

McNally, Louise. 2020. Strong and weak nominals. In Daniel Gutzmann, Lisa Matthewson, Cecile Meier, Hotze Rullmann and Ede Zimmermann (eds.), *The Wiley Blackwell*

Companion to Semantics. Oxford: Wiley. DOI: https://doi.org/10.1002/9781118788516 .sem084.

Mithun, Marianne. 1984. The evolution of noun incorporation. *Language* 60(4): 847–894.

Muysken, Peter 2000. *Bilingual Speech: A Typology of Code-mixing*. Cambridge: Cambridge University Press.

Muysken, Pieter. 2010. Scenarios for language contact. In Raymond Hickey (ed.), *Handbook of Language Contact*, 265–281. Oxford: Blackwell.

Muysken, Pieter. 2013. Language contact outcomes as the result of bilingual optimization strategies. *Bilingualism: Language and Cognition* 16(4): 709–730.

Nikolaeva, Irina. 2004. *Online Documentation of Kolyma Yukaghir*. https://www.sgr.fi/ yukaghir/ (accessed in September 2023).

Nikolaeva, Irina. 2005. [review article of:] Elena Maslova "A grammar of Kolyma Yukaghir". *Linguistic Typology* 9(2): 299–325.

Nikolaeva, Irina. 2006. *A Historical Dictionary of Yukaghir*. Berlin: Mouton de Gruyter.

Nikolaeva, Irina. 2020. *Yukaghir Morphology in a Historical and Comparative Perspective*. München: LINCOM GmbH.

Nikolaeva, Irina and Andrew Spencer. 2019. *Mixed Categories. The Morphosyntax of Noun Modification*. Cambridge: Cambridge University Press.

Nikolaeva, Irina and Maria Tolskaya. 2001. *A Grammar of Udihe*. Berlin: Mouton de Gryuter.

Novikova, Klavdija A. 1960. *Očerki dialektov èvenskogo jazyka. Ol'skij govor* [*Sketches of the Even dialects. The Ola dialect*]. Vol. 1. Leningrad: Nauka.

Novikova, Klavdija A. 1980. *Očerki dialektov èvenskogo jazyka. Ol'skij govor* [*Sketches of the Even dialects. The Ola dialect*]. Vol. 2. Leningrad: Nauka.

Odé, Cecilia. 2012. A v segmentnoj fonetike tože čto-to est' [Segmental phonetics also has its charms]. In Ljudmila A. Verbickaja and Nadežda K. Ivanova (eds.), *Čelovek govorjaščij: issledovanija XXI veka k 80-letiju so dnja roždenija Lii Vasil'evny Bondarko* [Speaking humans: investigations of the 21st century for the 80th birthday of Liya V. Bondarko], 34–42. Ivanovo: IGHTU.

Pakendorf, Brigitte. 2007. *Contact in the Prehistory of the Sakha (Yakuts): Linguistic and Genetic Perspectives*. Utrecht: LOT.

Pakendorf, Brigitte. 2009. Intensive contact and the copying of paradigms – an Èven dialect in contact with Sakha (Yakut). *Journal of Language Contact* 2: 85–110.

Pakendorf, Brigitte. 2017. Lamunkhin Even evaluative morphology in cross-linguistic comparison. *Morphology* 27: 123–158.

Pakendorf, Brigitte. 2019. Expressing equality, similarity, and pretense in Even (Northern Tungusic, Siberia). *Faits de langues*, Special issue on "*Comparaisons d'égalité et de similitude et expression de la simulation*" edited by Yvonne Treis and Claudine Chamoureau 50(1): 91–109.

Pakendorf, Brigitte and Natalia Aralova. 2020. Even and the Northern Tungusic languages. In Martine Robbeets and Alexander Savelyev (eds.), *The Oxford Guide to the Transeurasian Languages*, 288–304. Oxford: Oxford University Press.

Pakendorf, Brigitte and Eugenie Stapert. 2020. Sakha and Dolgan, the North Siberian Turkic languages. In Martine Robbeets and Alexander Savelyev (eds.), *The Oxford Guide to the Transeurasian Languages*, 430–445. Oxford: Oxford University Press.

Pekarskij, Eduard K. 1958/1959 [1907–1930]. *Slovar' jakutskogo jazyka* [*A dictionary of the Yakut language*]. Yakutsk: Jakutskij filial Akademii nauk SSSR.

Poplack, Shana and Stephen Levey. 2010. Contact-induced grammatical change. In Peter Auer and Jürgen Erich Schmidt (eds.), *Language and Space: An International Handbook of Linguistic Variation, Vol. 1: Theories and Methods*, 391–418. Berlin: de Gruyter.

Pupynina, Maria and Natalia Aralova. 2021. Lower Kolyma multilingualism: Historical setting and sociolinguistic trends. *International Journal of Bilingualism* 25 (4): 1081–1101.

Pupynina, Maria and Nikolay Vakhtin. this volume. The Tundra Yukaghir language in a multilingual environment: a longitudinal research.

Robbek, Vasilij A. 2007. *Grammatičeskie kategorii èvenskogo glagola* [*The grammatical categories of the Èven verb*]. Novosibirsk: Nauka.

Robbeets, Martine and Sofia Oskolskaya. 2022. Proto-Tungusic in time and space. In Andreas Hölzl and Thomas E. Payne (eds.), *Tungusic Languages: Past and Present*, 263–294. Berlin: Language Science Press.

Romanova, Agnija V. and Anna N. Myreeva. 1968. *Dialektologičeskij slovar' èvenkisjkogo jazyka. Materialy govorov Jakutii* [*A dialectal dictionary of Evenki. The materials from the dialects of Yakutia*]. Leningrad: Nauka.

Ross, Malcolm. 2007. Calquing and metatypy. *Journal of Language Contact* 1(1): 116–143.

Serdobolskaya, Natalia. 2015. Pseudoincorporation analysis of unmarked direct objects in Mari. In Olga Borik and Berit Gehrke (eds.), *The Syntax and Semantics of Pseudo-incorporation*, 296–328. Leiden: Brill.

Serdobolskaya, Natalia. 2020. A corpus analysis of differential object marking in Beserman Udmurt. *Linguistica Uralica* 56: 275–308. DOI: https://dx.doi.org/10.3176/lu.2020.4.03.

Siegl, Florian. 2021. Notes on Sakha's modal predicators *naada* and *tustaax* from a Taimyr Dolgan perspective. *Studia Orientalia Electronica* 9(1): 31–65.

Slepcov, Petr A. (ed.). 1972. *Jakutsko-russkij slovar'* [*Yakut-Russian dictionary*]. Moscow: Sovetskaja Ènciklopedija.

Slepcov, Petr A. (ed.). 2005. *Bol'šoj tolkovyj slovar' jakutskogo jazyka. B* [*Large reference dictionary of the Yakut language. B*]. Novosibirsk: Nauka.

Slepcov, Petr A. (ed.). 2006. *Bol'šoj tolkovyj slovar' jakutskogo jazyka. G–I* [*Large reference dictionary of the Yakut language. G–I*]. Novosibirsk: Nauka.

Slepcov, Petr A. (ed.). 2014. *Bol'šoj tolkovyj slovar' jakutskogo jazyka. T* [*Large reference dictionary of the Yakut language. T*]. Novosibirsk: Nauka.

Sotavalta, Arvo and Harry Halén. 1978. *Westlamutische Materialien*. Helsinki: Soumalais-Ugrilainen Seura.

Starostin, Sergei, Anna Dybo and Oleg Mudrak. 2003. *Etymological Dictionary of the Altaic Languages*. Vol. 1–3. Leiden: Brill.

Šarina, Sardana I. and Raisa P. Kuz'mina. 2018. *Nižnekolymskij govor èvenskogo jazyka* [*The Lower Kolyma dialect of the Even language*]. Novosibirsk: Nauka.

Thomason, Sarah and Terrence Kaufman. 1988. *Language Contact, Creolization, and Genetic Linguistics*. Berkeley: University of California Press.

Ubrjatova, Elizaveta I. 1972. Kratkij grammatičeskij očerk jakutskogo jazyka [A short grammar sketch of Yakut]. In Petr A. Slepcov (ed.), *Jakutsko-russkij slovar'*, 569–606. Moscow: Sovetskaja Ènciklopedija.

Ubrjatova, Elizaveta I. (ed.). 1982. *Grammatika sovremennogo jakutskogo literaturnogo jazyka. Fonetika i morfologija* [*A grammar of the modern Yakut literary language. Phonetics and morphology*]. Moscow: Nauka.

Ubrjatova, Elizaveta I. (ed.). 1995. *Grammatika sovremennogo jakutskogo literaturnogo jazyka. Sintaksis* [*A grammar of the modern Yakut literary language. Syntax*]. Novosibirsk: Nauka.

Van Coetsem, Frans. 1988. *Loan Phonology and the Two Transfer Types in Language Contact*. Dordrecht: Foris.

Varlaamova, Galina I. and Aleksandr N. Varlaamov. 2003. *Skazanija vostočnyx èvenkov* [*Legends of the Eastern Evenkis*]. Yakutsk: IPMNS SO RAN.

Vinokurova, Nadezhda. 2005. *Lexical Categories and Argument Structure: a study with reference to Sakha*. PhD dissertation, Leiden University (LOT Series, https://www.lotpublications.nl/lexical-categories-and-argument-structure-lexical-categories-and-argument-structure-a-study-with-reference-to-sakha).

von Heusinger, Klaus. 2011. Specificity. In Klaus von Heusinger, Claudia Maienborn and Paul Portner (eds.), *Semantics. An International Handbook of Natural Language Meaning*, 2: 1025–1058. Berlin: de Gruyter.

Wälchli, Bernhard. 2022. Selectives ("topic markers") on subordinate clauses. *Linguistics* 60(5): 1539–1617. DOI: https://doi.org/10.1515/ling-2020-0242.

Xaritonov, Luka N. 1947. *Sovremennyj jakutskij jazyk. Čast' pervaja: fonetika i morfologija* [*The modern Yakut language. Part 1: Phonetics and morphology*]. Yakutsk: Naučno-Issledovatel'skij institut jazyka, literatury i istorii JaASSR.