Tundra Nenets: a grammatical sketch

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This is a revised and partly updated version of the article that appeared printed under the title "Nenets" in *The Uralic languages* (Salminen 1998b).

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Note 1: The combining diacritic breve (˘), which appears in the *Orthography* sections below, is written separately after the Cyrillic letters ‹и› and ‹y›, i.e., ‹и› with breve = ‹и˘› and ‹y› with breve = ‹y˘›, because the Unicode system transforms the actual combinations into the Cyrillic letters "short i" ‹й› and "short u" ‹ў›, respectively. This is, of course, both formally and functionally a grave error in the Unicode standard.

Note 2: The correct Unicode characters for the letters indicating the velar nasal in the orthography of Tundra Nenets, and in the orthographies of all relevant languages of the Far North, are ‹Ӈ› and ‹ӈ›, i.e., letters "with descender". The Unicode standard contains additional characters "with hook", which, however, represent allographs (variants, duplicates) of the characters "with descender", based on a misunderstanding with regard to the graphic shapes of the letters in question as used by a single publishing house («Просвещение» in St. Petersburg). Only the characters "with descender" are recommended for general use, in the hope that the characters "with hook" will soon become unused and obsolete.

Note 3: In the revised versions of the sketch, the original "∅" is replaced with *ə* (and referred to as the "short vowel" rather than the "reduced vowel"). Similarly, the digraph "*ng*" is replaced with *ŋ* (or *Ŋ* as a capital letter). The characters *ə* and *ŋ* are recommended for quoting Tundra Nenets material in phonological transcription, but *∅* and *ng* may, of course, still be used whenever the special characters are not easily available.

Note 4: In the updated version {curly brackets} refer to lexical stems and deep forms of suffixes which may include variables and triggers, while |vertical lines| mark underlying phonological sequences. For example, the imperfective participle suffix is given as {-n~ta}, which yields the underlying variants |na| and |ta|, of which the latter surfaces as *-da* or *-ta* with phonological processes applied.

Note 5: A number of terminological revisions have been adopted, notably "reduced vowel" → short vowel, "conjugational groups" → conjugational classes, "mixed stems" → alteration stems (of verbs), and "habitive" → habitual (verb). More substantial updates are explained in the text itself or marked with blue colour. Trivial errors in the original article created in the editing process beyond the control of the author are marked with magenta colour.

Note 6: Sections for further reading, still unupdated, have been restored to their original positions at the end of each main section. Similarly, the most recent publications are missing from the list of references for the time being.

Introduction

The traditional territory of the Tundra Nenets language extends along a vast tundra zone from the Kanin Peninsula in the west to the Yenisei River delta and the Yenisei Bay in the east. The northern boundary is formed by the Arctic Ocean, Tundra Nenets being also spoken on several of its islands. In the south, the language boundary extends just beyond the tree line. In terms of present administrative units of the Russian Federation, the area thus defined includes: (i) the whole Nenets District, including the Kolguev and Vaigach islands, and part of the Mezen' County in the Arkhangel'sk Province; (ii) parts of the four northernmost counties in the Komi Republic; (iii) practically all of the Yamal, Nadym, and Taz counties, about half of the Ural County, and minor parts of the remaining three counties of the Yamal Nenets District in the Tyumen' Province; (iv) most of the Ust'-Yeniseisk County of the Taimyr District in the Krasnoyarsk Region.

The dialects of Tundra Nenets exhibit relatively little diversity. There are no grave obstacles to mutual comprehension despite the geographical distance. This must be due to both the relatively recent occupation of much of the present territory and the great mobility typical of the nomadic way of life Nevertheless, several phonological and lexical, and a few morphological isoglosses cross the language area.

Three dialect groups may be recognized, viz Western (to the west of the Pechora, with the subdivisions of Far Western on the Kanin Peninsula, and Mid Western in the Malaya Zemlya); Central (from the Pechora to the Ural, i.e. in the Bol'shaya Zemlya); and Eastern (on the Siberian side, with the subdivisions of Mid Eastern, including the Ob' area and the Yamal Peninsula, and Far Eastern, to the east of the Ob' Bay). Phonologically, the main bifurcation is between the Western dialect group, which exhibits several peculiar innovations, and the Central–Eastern cluster, which, though less innovative, possesses a couple of common sound changes. By contrast, the Urals tend to divide morphological and lexical variants, so that it is often justified to talk about specifically European vs. Siberian features of Tundra Nenets. The actual isoglosses, however, vary from one case to another. Unless stated otherwise, the material presented in this chapter is in accordance with the Central dialects.

The languages that historically border, and partly mingle, in the Tundra Nenets country are Russian in the far west, Komi on most of the European side, Northern Mansi to a limited extent in the Ural area, Northern Khanty in the Ob' area, Forest Nenets in the Nadym and the Pur areas, Northern Selkup along the Taz after the historically attested arrival of the Selkups there, and Forest Enets, Tundra Enets, Evenki, Ket, Yakut (Dolgans), and Nganasan in the east, ever since the gradual expansion of Tundra Nenets to the Yenisei area. Komi and Northern Khanty are the two languages that are known to have had the most extensive contacts with Tundra Nenets for a lengthy period, while Russian influence has now by far surpassed their effects on Tundra Nenets.

The number of Tundra Nenets speakers has been growing throughout the historical era. Since the Tundra Nenets area has been mostly expanding until recently, both the growth of the national population and the absorption of members of other nations have contributed to an increase in the number of speakers. In recent decades, however, the number of speakers has remained fairly constant, because population growth is offset by linguistic assimilation. Currently, there are approx. 20,000 Tundra Nenets speakers.

The above-defined traditional Tundra Nenets territory comprises areas that are known to have been inhabited by other peoples in the beginning of the historical era. Firstly, the areas west of the Yenisei were formerly populated by speakers of Yurats. By now, the Yurats appear to have completely adopted the Tundra Nenets language and identity, and the recordings of their original vernacular are meagre. Secondly, seventeenth century explorers reported that other, linguistically unrelated people had been living side by side with the Nenets in the westernmost areas of Kanin and Kolguev. Presumably, an extensive part of the modern Nenets area was inhabited by a more aboriginal population in not too remote prehistorical times. There is a Tundra Nenets word *syix°rtya* referring to the aborigines, vividly described in Nenets folklore, but there is no material evidence of their language or languages.

In more recent times, Tundra Nenets settlers have continued to expand by inhabiting further areas lying beyond the traditional territory as defined above. The islands of Novaya Zemlya in the Arkhangel'sk Province received their first inhabitants only in the nineteenth century, when the Russian government brought in Nenets families in order to strengthen its claim to sovereignty over the islands. Some Nenets also followed the Izhma Komi who emigrated to the Kola Peninsula in Murmansk Province, though it is not known to what extent Nenets rather than Komi was used by them. In the east, the Tundra Nenets-speaking area now extends across the Bay of Yenisei to larger parts of the Taimyr District, where a process of Nenetsization, similar to the completed absorption of Yurats, is underway among both groups of Enets.

While continuously expanding in the east, the Tundra Nenets area has lately been receding on the European side Not only is the Russian presence most influential there, but a number of Izhma Komi have also immigrated to Nenets areas, often taking a leading position in economic spheres; this has led to many communities shifting to the use of Komi. Because of nuclear experiments beginning in the 1950s, the inhabitants of Novaya Zemlya were resettled in urban settlements on the continent, which effectively led to the loss of native language command among the Nenets in question. The net result is that while some of the local dialects in the vicinity of Komi areas have already become extinct, many if not all forms of European Nenets must be regarded as moribund.

The survival forecast on the Siberian side is, as is to be expected, much brighter. In the Ob' area, the relative vigour of the aboriginal Tundra Nenets and Northern Khanty communities together with the diversity of Komi, Russian, and Tatar immigrant groups have traditionally favoured wide-spread multilingualism rather than the domination of a single language. In the more eastern areas, it is Tundra Nenets that has functioned as a lingua franca, gradually replacing other vernaculars. During the Soviet era, however, Russification policies and the massive influx of Russian-speaking colonizers nearly eliminated both the multilingual tradition and the interethnic use of Tundra Nenets, leaving only the home and the traditional economy, based on nomadic reindeer breeding, for the native language. The deliberate alienation of children from their native language and culture through the Soviet schooling system is, of course, deeply felt among the Siberian Nenets, as well, so that not even Nenets homes have avoided Russification Nevertheless, the traditional Nenets way of life is still a competitive alternative to the adoption of Russian habits and, eventually, of the Russian language. Many younger Nenets seem to be devoted to the maintenance of their national culture, and to the maintenance of the Nenets language as its expression.

Despite many positive indications, even the Siberian Tundra Nenets community is still very

much threatened, and perhaps more so now that the heartlands of the Nenets country on the Yamal Peninsula are being invaded by oil and gas prospectors. Because of continuing Russian cultural oppression and economic exploitation, only a wide-scale national awakening, leading to a real ethnic autonomy with a strict control of the native territory, may secure the long-term existence of the Tundra Nenets people and their language.

Further reading. Major introductions and grammatical treatments appear in Castrén (1854 [²1966]), Tereshchenko (1947), Décsy (1966), and Hajdú (1968 [²1982]). Textbooks include Tereshchenko (1959), Almazova (1961), Barmich & Kupriyanova (1979), and Kupriyanova & Barmich & Khomich (1985). Tereshchenko (1956) and Hajdú (1975) present wide selections of articles on various topics. Among dictionaries, Castrén (1855) is the earliest, Lehtisalo (1956) extensive, phonetic and dialectological, and Tereshchenko (1965) large and standard. Pyrerka & Tereshchenko (1948) is the only larger dictionary from another language to Nenets. Text collections focusing on folklore include Castrén (1940), Castrén & Lehtisalo (1960), Lehtisalo (1947), Kupriyanova (1965), Tereshchenko (1990). A literary history in Nenets is Susoi (1990). Large bibliographies have been published by Hajdú (1968 [²1982], 1988).

Phonology

Syllable structure

The basic syllable structure is CV(C), i.e. a syllable consists of an initial consonant, a medial vowel, and an optional final consonant, e.g. *ya* 'earth', *myaq* 'tent', *wada* 'word', *ŋarka* 'big', *nyax°r* 'three', *xampol* 'litter'.

There exist, however, vowel sequences, with the schwa ° or the short vowel ə as the latter segment. Such sequences are best divided into separate syllables, which yields an additional, non-initial syllable structure °/ə(C), e.g. *xo°ba* 'cradle', *nya°ra* 'inner part of hide', *ŋəəbt°q* 'poison', *wíh* 'tundra' : gen.sg *wí°h*, *to-* 'to come' : subj.1sg *toəd°m* : 2sg *toən°* : 3sg *to°*.

The basic syllable structure implies that word-forms do not begin with a vowel. However, many dialects seem to contain a few words with an initial vowel. For instance, *əmke* 'what' is widely used instead of *ŋəmke*. By contrast, the Western dialects, because of the loss of initial *ŋ, possess a large number of initial vowels, and thus an initial syllable structure V(C), e.g Western *arka* 'big' ~ Central–Eastern *ŋarka*.

Monosyllabic word-forms cannot end with the short vowel, so there are no word-forms of the structure *Cə. In other respects, the basic syllable structure holds good for all dialects, i.e. there are no diphthongs or double vowels, no initial or final consonant clusters, and no medial consonant clusters with more than two consonants.

Stress pattern and vowel reduction

Stress is predictable from syllable and segmental structure. It falls on an initial syllable, syllables preceding a syllable with a schwa, and non-final syllables preceded by an unstressed syllable. Stress does not fall on a final syllable (with one particular exception discussed below), syllables with a schwa, and syllables following a stressed syllable unless they precede a

syllable with a schwa. Most typically, the first syllable of each two-syllable string is stressed, or in other words, the stress falls on non-final odd syllables.

However, the predictability of stress holds good only if the opposition of the short vowel and the schwa is respected, because the stress relations which govern vowel reduction are partly lexical and morphological. Taking into account those complications, vowel reduction is an automatic phonological process where |ə| → ° in unstressed positions. It yields alternations such as *xər°* 'knife' : poss. nom.sg2sg *xərər°* : 3sg *xər°da*, *xarəd°* 'house' : *xar°dər°* : *xar°dəda*.

Under certain conditions, however, the unstressed schwa vowel appears in an odd syllable. Such cases include, in the first place, vowel sequences after a stressed syllable, unless they precede a syllable with a schwa, e.g. *xada-* 'to kill' : obj.sg3sg *xada°da* : obj.sg2sg with a clitic particle *xada°rə-wa* (instead of **xadaər°-wa*; cf. *xadaər°* without a clitic particle).

A number of sequences with a consonant, in most cases a suffix-initial glide, following a vowel, show a similar effect, e.g. *xada-* 'to kill' : obj.pl3sg *xadey°da*, *tyenye-* 'to remember' : partic.fut *tyenyew°nta*, *səwa* 'good' : pros.sg *səwaw°na*, *yedey°* 'new' : pros.sg *yedey°wəna*, ⇒ *yedey°mta-* 'to renew', *tyorye-* 'to shout' : subord.3sg *tyoryeb°ta*. In the last mentioned case, there is variation, and *tyoryebəta* is also attested. However, manifesting the morphological conditioning of the stress pattern, a similar sequence retains the short vowel in other morphological structures, e.g. *nyadayə-* 'to smell of lichen' : partic.impf *nyadayəda*, *tyenyewə-* 'to know' : partic.impf *tyenyewəna*.

Further, secondary vowel stems formed from liquid stems have the added vowel unstressed whenever possible, often yielding a schwa in the third syllable, e.g. *yayol-* 'to grow turbid' ⇒ iter. *yayol°ŋkə-*, *syibyel-* 'to turn pale and earthy' ⇒ *syibyel°ŋkə-*, *poyol-* 'to get mixed up' ⇒ tr. *poyol°ta-* 'to mix up'. Such cases contrast with primary vowel stems, e.g. *wenolə-* 'to get frightened (an animal)' ⇒ iter. *wenoləŋkə-*, *pyidyelə-* 'to become pliable' ⇒ *pyidyeləŋkə-*. In other instances, though, it is the final vowel of primary vowel stems or the vowel preceding the stem-final consonant that undergoes reduction, e.g. *ləkadə-* 'to snap (fingers)' ⇒ tr. *ləkad°ta-*, *nyancyaləm-* 'to become dumb' : 3sg *nyancyal°ma*, ⇒ freq. *nyancyal°wor-* 'to grow dumb', ⇒ tr. *nyancyal°mtye-* 'to make dumb'.

A process of metathesis which creates final *°xəC* sequences, formerly regarded as phonetic and discussed in the context of vowel harmony, is now recognized as phonologically significant, e.g. *xor°* 'oven' : dat.pl *xor°xəq* rather than **xorəx°q*, cf. dat.sg *xorən°h*; no neutralization with *°xaC* sequences takes place, so that *xor°xəq* is kept apart from *xor°xaq* 'birch' sim. nom.pl. The phonological nature of the process of metathesis is manifested by instances of morphological vowel reduction, e.g. *yedey°* 'new' : nom.du *yedey°xəh* vs. *sarmyik°* 'animal, wolf' : *sarmyikəx°h*.

In a few loanwords, a schwa may also appear in an initial syllable, e.g. *p°rasyin°* 'tarpaulin', *t°ronyi* 'peasant's sledge (for carrying wood)', *x°ryís°tya* 'club (playing card)'. The primary stress is then on the next syllable.

In compounds, each part has a separate stress pattern, e.g. *nye-nya* 'sister' : loc.sg *nye-nyax°na* (rather than **nyenyaxəna*).

Vowels

Table 1. • *The general system of Tundra Nenets vowel phonemes*

schwa	short	plain		stretched	
		i	u	í	ú
		e	o		
°	ə	a		æ	

Note 1: Distinct subsystems for plain and stretched vowels are justifiable mainly on historical grounds except that the stretched vowels are notably absent in non-initial syllables.

Note 2: Some of the Far Western dialects seem to lack *æ (> *e*) and there may exist varieties in which the high stretched vowels have merged with their plain counterparts.

Pronunciation

(i) **Frontness–backness**. All vowels except *æ* (**Cyæ* not existing) have two basic allophones, a front one when preceded by a palatal consonant, and a back one when preceded by a non-palatal consonant. In other words, palatality is a property prevailing within the syllable as a whole.

(ii) **Quantity**. The schwa is pronounced either as an over-short vowel or not at all; nevertheless, it is always reflected in the phonetic substance. The short vowel is generally a relatively low and short vowel. The high plain vowels vary from half-long to short. The mid plain and all stretched vowels are pronounced long or half-long. In stressed positions *a* is long but subject to reduction when unstressed. The vowel sequences are invariably over-long or long vowels, with the possibility of two syllable peaks in their pronunciation.

(iii) **Phonetic vowel reduction**. When unstressed, *a* is pronounced short, or half-long at best, and more central, close to the quality but not the quantity of the mid vowels. (As a relic of the former view that the reduction of *a* should be regarded as phonemic, early publications by the author use the symbol *â* for the reduced *a*.)

(iv) **Phonetic schwa**. In sequences of *qC°*, an over-short vowel is often pronounced between the glottal stop and the consonant.

(v) **Diphthongization**. Most typically, and especially in the Eastern dialects, *æ* is pronounced as a slightly rising diphthong, while *e* and, after palatal consonants, *a*, can be slightly falling.

(vi) **Vowel harmony**. After *x* and, in the few existing cases, *q*, the quality of the following °, *ə* and, occasionally, *a* matches that of the preceding vowel. The quantitative oppositions remain, so that the phonemic distinctions are preserved. Contrary to the former view of the author, there is a phonological process of metathesis which creates final *°xəC* sequences, e.g. *xor°* 'oven' : dat.pl *xor°xəq* rather than **xorəx°q*, as discussed in the *Stress pattern and vowel reduction section above*.

(vii) Especially in the Eastern dialects, unstressed *e* and *o* appear as relatively high vowels, quite close to the allophones of *i* and *u*. However, in most, if not all, dialects, the contrast is

retained.

Orthography

The basic standard orthography recognizes only five vowel units, with a double number of vowel signs for indicating the palatality of the preceding consonant, i.e. *ə* & *a* = ‹а/я›, *e* = ‹э/е› & *æ* = ‹э›, *i* & *í* = ‹ы/и›, *o* = ‹о/ё›, *u* & *ú* = ‹у/ю›. The schwa usually has no overt marking, except after *x* and *q* where it is written according to (phonetic) vowel harmony, and, inconsistently, in other positions, such as between consonant clusters where it is written like *ə*. In dictionaries, a refined version of standard orthography is used. It could in principle distinguish all vowel phonemes, but fails to do so in practice. Most consistently, (back) *e* and *æ* are differentiated by a dot on the former, i.e. *e* = ‹э̇›, *æ* = ‹э›. The high stretched vowels are, by contrast, only rarely written with a macron, i.e. *í* = ‹ы̄/ӣ›, *ú* = ‹ӯ/ю̄›. As a further complication, the macron is also used to indicate vowel sequences. The crucial distinction of *ə* vs. *a* is more often than not rendered with a breve over the short vowel, i.e. *ə* = ‹ă/я̆›, *a* = ‹а/я›. Vowel harmony is indicated, e.g. *noxa* 'Arctic fox' = ‹нохо›, *nix°* 'power' = ‹ныхы› (‹ныхы̆›), *pyix°nya* 'night' loc.sg = ‹пихиня› (‹пихйня›). The short vowel is written allophonically also before a pre-schwa labial glide, e.g. *padəw°* 'bag' poss. nom.sg1sg = ‹падув› (‹падўв›). The phonetic schwa between a glottal stop and a consonant preceding a schwa is reflected in the orthography, though inconsistently, e.g. *waqw°* 'bed' = ‹ва"ав› (‹ва"ă̆в›), *myaqm°* 'tent' poss. nom.sg1sg = ‹мя"ам› (‹мя"ă̆м›).

Phonotactics

As explained in connection with the stress pattern, the schwa is practically absent in the first syllable, and there cannot be two schwa vowels in consecutive syllables. As the latter part of a vowel sequence, only the schwa or the short vowel, not mutually contrastive in that position, may appear. The stretched vowel *æ* does not appear after palatal consonants, and the short vowel *ə* not after labiopalatal consonants. It is now quite clear that stretched vowels do not occur in non-initial syllables: in the earlier description non-initial *æ* was thought to be present in the essive suffix *-ŋæ* but the correct phonemization of the suffix is *-ŋe°* instead, and it is not likely that high stretched vowels appear in non-initial syllables at all, not even in dialectal accusative plural forms as suggested before.

Consonants

Table 2. • *Tundra Nenets consonant phonemes: the two main systems*

		Central—Eastern	Western
nasals		m my n ny ŋ	m my n ny ŋ
stops	strong	p py t ty k q/h	p py t ty k q/h
	weak	b by d dy	b by d dy g
affricates	strong	c cy	c cy
	weak		j jy
fricatives		s sy x	s sy x
semivowels		w ÿ	w wy đ ÿ
liquids	lateral	l ly	l ly
	tremulant	r ry	r ry

Palatal consonants are marked by *Cy* digraphs. Word-initially and postvocalically, where no

confusion with palatality marker is possible, the palatal glide is written *y* instead of *ÿ*. In the morphology section below, suffix-initial *y* always indicates the palatalization of the preceding consonant. The dual marking of the glottal stop as either *q* or *h* is explained below.

Historically, the Central–Eastern system has changed from the proto-system only by *wy > *by*. By contrast, the Western system has not only retained *wy*, but has also acquired four secondary consonants through denasalization, i.e. *nt > *d* whereby *d > *đ*, *nc > *j*, *ncy > *jy*, and *ŋk > *g*; *mp, *mpy and *ndy have presumably merged with *b*, *by*, and *dy*, respectively. Two additional systems are also known to exist, viz a Far Eastern one where *c > *s*, *cy > *ty*, and a Western one with *wy* but without denasalization, thus lacking *j*, *jy*, *g*, and *đ*.

Pronunciation

(i) **Palatalization–velarization**. While the palatal counterparts of dental consonants are also phonetically palatal, the labiopalatal consonants are palatalized. On the other hand, the non-palatal counterparts of palatal consonants are frequently velarized. Cf. frontness–backness of vowels above.

(ii) **Postnasal obstruent weakening**. Especially in the European dialects, obstruents are often voiced after a nasal. Furthermore, postnasal affricates may lose their closure, yielding phonetic voiced sibilants, which is also the usual pronunciation of the Western weak affricates *j jy*.

(iii) **Fricativization**. The Central–Eastern weak obstruent *d* and the historically identical Western *đ* are typically pronounced as a fricative. Other weak obstruents are subject to slighter fricativization.

(iv) **Gemination**. All consonants except the weak obstruents (including the Western *đ*) and *x* are half-long and often transcribed as short geminates in intervocalic positions; the same is true of obstruents when preceded by a liquid.

(v) **The added glottal stop**. A glottal stop is pronounced after other consonants in final position, i.e. *b l m r*. The resulting phonetic sequences differ from sequences of a consonant followed by a schwa and a glottal stop, i.e. $C°q$ ($C°h$), mainly by the consonants being pronounced markedly longer in the latter case.

(vi) Most typically in the Far Eastern dialects, the palatal obstruents *sy* and *ty* (< *ty* & *cy*) are pronounced with a more hushing quality.

Orthography

Spelling of consonants is for the most part phonemic, but in a few cases it is phonetic. Postnasal obstruent weakening is reflected in standard orthography with ‹мб›, ‹мд›, ‹мз›, ‹мг›, ‹нд›, ‹нз›, ‹нг› for *mp*, *mt*, *mc*, *mk*, *nt*, *nc*, *ŋk*. In normative orthography, the glottal stop is written with separate letters for the different sandhi variants, i.e. *q* = ‹"›, *h* = ‹'›, though many publications are content with a single letter. The added glottal stop is written with the same letters, so that *m* is followed by ‹'›, e.g. *num* ‹нум'› 'sky', and *b*, *l*, and *r* are followed by ‹"›, e.g. *ŋob* ‹ноб"› 'one', *xampol* ‹хамбол"› 'litter', *yur* ‹юр"› 'hundred'. It is vital that the added glottal stop has an overt expression in the orthography, because from the phonemic point of view, it denotes the absence of the schwa in the final position.

Sandhi

Consonant sandhi is an automatic phonological process, valid irrespective of word boundaries. It includes the following interconnected subprocesses:

(i) **Postvocalic obstruent weakening**: |p py t ty| → *b by d dy* / V _, e.g. *ya* 'earth' : poss. nom.sg3sg *yada* (cf. *yam* 'sea' : *yamta*, *yar* 'side' : *yarta*);

(ii) **Postconsonantal continuant strengthening**: |s sy x| → *c cy k* / C _, e.g. *yam* 'sea' : loc.sg *yamk°na*, ⟹ com. *yamcawey°*; *yar* 'side' : loc.sg *yark°na*, ⟹ com. *yarcawey°* (cf. *ya* 'earth' : *yax°na*, ⟹ *yasawey°*);

(iii) **Preobstruental loss of the non-nasalizable glottal stop**: |q| → ∅ / _ C[obstruent], e.g. *yaq* 'strand of hair' : poss. nom.sg3sg *yata* : loc.sg *yak°na*, ⟹ com. *yacawey°*;

(iv) **Preobstruental nasalization of the nasalizable glottal stop**: |h| → *m n ŋ* / _ C[obstruent], e.g. *yah* 'soot' : poss. nom.sg3sg *yanta* : loc.sg *yaŋk°na*;

(v) **Presonorantal loss of the nasalizable glottal stop**: |h| → ∅ / _ C[sonorant], e.g. *yah* 'soot' : poss. nom.sg2sg *yal°* (cf. *yaq* 'strand of hair' : *yaql°*).

Phonotactics

On the basis of consonant sandhi, consonants are divided into primary and secondary consonants. The secondary consonants, *b by d dy c cy k* and the Western *j jy g đ*, are in all instances derived from primary consonants, except the cases where *b* and *by* are due to the morphophonological palatalization of *w*.

Table 3. • *Phonotactic distribution of Central–Eastern Tundra Nenets consonants*

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#_V   m my n ny ŋ   p py       t ty               s sy   x   l ly       w ÿ
C_V   m my n ny ŋ   p py b by t ty         c cy       k     l ly       w ÿ
V_V   m my n ny ŋ   p py b by t ty d dy c cy s sy k x q l ly r ry w ÿ
V_C   m     n     ŋ         b                           q l     r
V_#   m           h         b                           q l     r
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Restrictions on initial consonants are strictly observed in the present-day language, as seen in such Russian loanwords as Eur. *paŋkor* ~ Sib. *pakor* 'gaff' (< *bagór*), *syas°* 'hour, watch' (< *čas*), *xos°ka* 'cat' (< *kóška*). The initial vibrants *r ry* are nowadays allowed in the European but not in the Siberian dialects, e.g. Eur. *ryes°ka* ~ Sib. *lyes°ka* 'unleavened flat cake, pie, (Sib. also) dough'. Initial secondary consonants may also appear in recent loanwords but only in restricted areas, viz *b by d dy g* in the Western dialects, and *c cy k* in the neighbourhood of Komi and Khanty dialects.

Postconsonantal *by* appears only as a result of the morphophonological palatalization of *w*, as in *myirw°* 'weapon' : acc.pl *myirbye*, *syíqw°* 'seven' ⟹ ord. *syíqbyimtyey°* 'seventh', and postconsonantal *b* only as a result of further depalatalization before the short vowel *ə* in the word *syurbə-* 'to run' and its derivatives.

Vowel sequences cannot precede *x*. This is reflected in verbal morphology in connection with *x*-initial suffixes.

The intervocalic glottal stop is present only in a few cases, notably augmentative forms like *pəncyeq°* 'louse' and the (typically Eastern) adverbal stem *tyuqə-* 'up'.

Because of consonant sandhi, the glottal stop is excluded and the opposition of the non-labial nasals is neutralized before obstruents.

There are three interpretations of the glottal stop sound in final position according to its behaviour, but only the nasalizable and the non-nasalizable are phonologically significant, the added glottal stop being an automatic concomitant of a prepausal consonant. The nasalizable and the non-nasalizable glottal stop, transcribed *h* vs. *q*, are to be understood as not phonemic but nonetheless phonological, their opposition being manifested by distinct sandhi patterns, e.g. *nyeh xən°* = *nyeŋ_kən°* 'a woman's sledge' vs. *nyeq xən°* = *nye_kən°* 'a women's sledge', *toh war°* = *to_war°* 'a shore of a lake' vs. *toq war°q* = *toq_war°q* 'shores of lakes'. The nasalizable glottal stop is, consequently, present only prepausally. In all likelihood, its pronunciation coincides with that of the non-nasalizable glottal stop. A reservation may be in order here because speakers are clearly aware of the dual phonological nature of the glottal stop, a circumstance that may give rise to some difference, real or pretended, in the pronunciation. In any case, the description obviously benefits by having distinct symbols for the two phonological glottal stops.

The number of consonant clusters is further restricted by morphophonological processes, as a residue of assimilative sound changes. In a few cases, there remains a possibility of analogical restorations, the extent of which varies from one dialect to another. The acceptable clusters include:

   (i) *q* + a sonorant. On the basis of Lehtisalo's recordings, it is often assumed that the glottal stop has been lost preconsonantally in the Siberian dialects but this does not hold true for all if any of them.
   (ii) *m*, *b*, *l*, *r* + any consonant. Geminate type clusters, i.e. *mm*(y), *bp*(y), *ll*(y), *rl*(y), are, however, in principle excluded, though they may emerge analogically in some dialects. The clusters **mw*, **mby*, **bw*, **bby* are, by contrast, unattested, and probably unacceptable.
   (iii) *n*, *ŋ* + a homorganic obstruent.
   (iv) *n* + *ÿ*. This cluster appears to be of analogical origin. Dialectally, analogical *nl*(y) may also appear.

Across word boundaries, geminate type clusters excluded above as well as *m_w* and *b_w* occur freely when the first word ends in *m*, *b*, *l*, or *r*. By contrast, **n_ÿ*, **n_l*, **n_ly* are impossible. It is another issue whether the outcome of a nasalizable glottal stop plus an initial sonorant differs from a single consonant. While there may be some evidence that points to an affirmative answer, the question does not arise when words are spelled separately, the nasalizable glottal stop being consequently rendered with its own symbol, i.e. *h*.

Further reading. An early publication is Lehtisalo (1927). A major work in the spirit of generative phonology is Janhunen (1986), with an ample bibliography. Later articles include Helimski (1989 [²2000]), Janhunen (1993), Salminen (1990a, 1990b, 1993a, 1993b).

Morphology

Within inflection, there is one word-form, the absolute nominative singular of nouns, where no morphological process is involved, so that the form is identical with the basic stem, disregarding morphophonological processes. For a few stem types, no morphological process takes place in the formation of the absolute accusative plural, either. In derivation, there are instances of noun-verb conversion. All other word-forms and derivatives exhibit morphological processes, i.e. suffixation, modification, or (partial) suppletion. Suffixation is the most frequent of them, though modification is by no means uncommon. Partial suppletion, by contrast, is rare and confined to a number of irregular verbal forms.

Morphological word classes

The two major word classes are verbs and nouns. Alongside the nouns, there are minor classes which exhibit some nominal categories. These include the personal pronouns and various groups of adverbs and postpositions. Adjectives do not form a word class distinct from nouns on the basis of their inflection, though they may have derivational peculiarities. The same applies to numerals, i.e. *ŋob* 'one', *syidya* 'two', *nyax°r* 'three', *tyet°* 'four', *səmp°lyaŋk°* (in European dialects *səm°lyaŋk°*) 'five', *mət°q* 'six', *syíqw°* 'seven', *syid°ntyet°* 'eight', *xasu-yúq* (Eastern *xasawa-yúq*) 'nine', *yúq* (Eastern also *lúca-yúq*) 'ten', *yur* 'hundred', *yon°r* 'thousand'. Non-personal pronouns also conform to normal nominal inflection, e.g. demonstrative *tyuku°* 'this', *taki°* 'that', *tyiki°* 'it', *tərcya* 'that kind', or interrogative *xíbya* 'who', *ŋəmke* 'what', *xurka* 'what kind'.

The residual morphological class is the particles, i.e. non-inflected words. In syntactic classification, they would mostly be included among the adverbs, as there are no true conjunctions in the language. Some particles are synchronically unanalysable, e.g. *təryem* 'thus, so', *ŋoq ~ ŋod°q* 'also', but others have morphological structure, evident in derivation, e.g. *tyedah* 'now' ⇒ lim. *tyedaryih* 'for a while', *xən-cyer°q* 'how' ⇒ lim. *xən-cyelyiq* 'anyhow'.

Stem types

The fundamental stem types are (i) vowel stems, (ii) glide stems, (iii) alteration stems, and (iv) consonant stems, the major division being between vowel and consonant stems. The number of glide stems is very small, and they differ from vowel stems only because of the appearance of a glide when a suffix with an initial vowel is attached. Alteration stems, including all polysyllabic *o-* and some *ə-*stems of verbs, show, besides specific peculiarities, a mixture of properties of vowel and consonant stems; the remaining *ə-*stems as well as all monosyllabic, *a-* and *e-*stems of verbs belong to vowel stems. Two verbs, *xæ-* 'to depart' and *ŋæ-* 'to be', may be characterized as irregular. The negative verb *nyi-* 'not' also exhibits idiosyncrasies.

Morphophonology

Morphophonological processes include morphophonological assimilations, alternations, and changes, vowel stem formation, truncation, and (de)palatalization. They differ from phonological processes, i.e. (primarily) consonant sandhi, in that they do not occur at word

boundaries and that they are not valid stem-internally. Cf., for instance, *ŋarka_mər°q* 'big town', and *nyema* 'sleep' or *xamada-* 'to understand' despite a morphophonological process {m} → |w| intervocalically. Analogical exceptions are also possible in certain cases.

Assimilations

(i) {r ry} → |l ly| / C _, e.g. *nyum* 'name' : poss. nom.sg2sg *nyuml°*, *syer* 'thing' : *syel°* (cf. *nya* 'friend' : *nyar°*).

(ii) {t s} → |q| / _ C or #, e.g. *myaq* 'tent' : poss. nom.sg2sg *myaql°* : 3sg *myata* (cf. gen.sg *myad°h*, acc.pl *myado*), *mən°q* 'lump' : *mənəql°* : *mən°ta* (cf. *mənəs°h*, *mən°so*).

(iii) {n ŋ} → |h| / _ C, except ÿ (and, dialectally, liquids) in most cases, or #, e.g. *peh-* 'to put' : ger.mod *pency°* : subj.3sg *peŋa* (cf. obj.pl3sg *penÿ°da*), *weh* 'dog' : nom.du *weŋk°h* : poss. nom.sg2sg *wel°* (~ *wenl°*) : gen.sg1sg *wen°* (cf. gen.sg *wen°h*, acc.pl *weno* or odor. *wenÿə-*), *wíh* 'tundra' : dat.sg *wínt°h* : poss. nom.sg2sg *wíl°* : gen.sg1sg *wín°* (cf. acc.pl *wíŋo*), *tideh* 'sembra pine' ⇒ odor. *tideyə-* 'to smell of sembra pine'.

(iv) {ŋ} → |n| / _ ÿ in certain cases, e.g. *nyenecy°h* 'person, human being' ⇒ pej. *nyenecyənÿe* 'poor man'.

(v) {ŋ} → ∅ / _ ə (in vowel stem formation), e.g. *wíh* 'tundra' : gen.sg *wí°h*.

(vi) {m} → |w| / V _ V, e.g. *ŋum* 'grass' : nom.pl *ŋuw°q* : acc.pl *ŋuwo*, *ŋəm-* 'to eat' : conneg. *ŋəw°q* : inf.pf *ŋəwoqma*, *xo-* 'to find' : inf.impf *xowa* (cf. *xoq-* 'to fetch' : *xoqma*).

(vii) Degemination: {m} → ∅ / _ m, e.g. *nyum* 'name' : poss. nom.sg1sg *nyum°*; {p} → ∅ / _ p, e.g. *ŋob* 'one' ⇒ mod. *ŋopoy°* 'the one'; {l r} → ∅ / _ l or r, e.g. *ser* 'salt' : poss. nom.sg2sg *sel°*. Dialectally, degemination may be suppressed by analogy.

(viii) {a} → |e| / _ ÿə in non-initial syllables under certain conditions, e.g. *xada-* 'to kill' : obj.pl3sg *xadey°da*, ord. *nyax°r* 'three' ⇒ *nyax°romtey°* 'third' vs. *nyabyi* 'other' ⇒ *nyabyimtyey°* 'second'.

(ix) {ə} → |u| / _ w in prosecutive singular, e.g. *xər°* 'knife' : pros.sg *xəruw°na*.

Alternations

(i) *n~ÿ*-stems: |n| _ C, |ÿ| _ V, e.g. *toh* 'blanket' : nom.pl *toy°q* : dat.sg *tont°h* : loc.sg *toŋk°na* : acc.pl *toyo*, *peh-* 'to put' : partic.impf *penta* : subj.3sg *peŋa* : obj.pl3sg *penÿ°da* : conneg. *pey°q* : inf.pf *peyoqma*.

(ii) *e~i-*, *e~iə-*, *o~uə-*, *∅~ÿə*-stems: the latter in final syllables and optionally preceding the preterite suffix, e.g. *ti* 'reindeer' : poss. nom.sg2sg *ter°* : predic. pret. 3sg *tisy°* (~ *tesy°*), *me-* 'to be' : conneg. *miq*; *pəni* 'dress' : poss. nom.sg2sg *pəner°* : predic. pret. 3sg *pəniəsy°* (~ *pənesy°*); *tyuku°* 'this' : dat.sg *tyukon°h*; *ŋopoy°* 'the one' : poss. nom.sg2sg *ŋopor°*.

(iii) Glide stems, with ∅ ~ |w| or |ÿ|: the glides appear before a vowel, e.g. *xa* 'ear' : acc.pl

xawo, *yí* 'wits' : acc.pl *yíbye*, *myí-* 'to prepare' : inf.pf *myíyeqma*.

(iv) Suffixes with initial |n| ~ |t|: the latter attaches to consonant and alteration stems, e.g. *lúca* 'Russian' : predic. 2sg *lúcan°* : abs. dat.sg *lúcan°h* vs. *nyenecy°h* 'person, human being' : *nyenecyənt°* : *nyenecyənt°h*, *nú-* 'to stand' : partic.impf *núna* vs. *myih-* 'to go' : *myinta* (~ *myintya*) vs. *xonyo-* 'to sleep' : *xonyoda*.

Suffix-initial change

In the formation of the general finite stem with the suffix {-ŋa} as well as in the optative forms with the suffix {-ŋə} for *m*-stems, the *ŋ* of the suffix is lost: *ŋəm-* 'to eat' : subj.3sg *ŋəma* : opt. subj.3sg *ŋəm°ya*. This is not a question of a simple assimilation, as *mŋ* generally remains intact, e.g. *ŋum* 'grass' ⟹ ess. *ŋumŋe°*.

Internal changes

The few cases include the accusative plural stems of *xasawa* 'man, male' : acc.pl *xasyew°*, *yəxa* 'river' : *yesyi*, and the general finite stem and the connegative of the alteration stems *yoxo-* 'to disappear' : subj.3sg *yuxu* : conneg. *yuxuq*, *toxo-* 'to learn' : *tuxu* : *tuxuq*. As can be seen, internal vowel changes do not occur independently of a modification affecting the final vowel of the stem.

Vowel stem formation

Consonant stems have a secondary vowel stem used before certain suffixes, formed by adding |ə| to the final consonant. For *ŋ*-stems, removal of the final *ŋ* takes place simultaneously, which yields a vowel sequence. The suffixes in question include those consisting of a single consonant, viz acc.sg {-m}, gen.sg {-h}, and nom.pl {-q}, e.g. *myaq* 'tent' : nom.pl *myad°q*, *syúh* 'navel' : *syú°q*, and conneg. = imp. subj.2sg {-q}, e.g. *myiq-* 'to give' : *myis°q*. Other inflectional suffixes involved are the imp. obj.pl2sg {-n} + {-q}, e.g. *ŋəm-* 'to eat' : *ŋəwən°q*, and imp. refl.2sg {-t} + {-q}, e.g. *səl-* 'to return' : *sələd°q*. There are more cases within derivation, for instance the comparative {-rxa}, e.g. *səŋkowoq-* 'to be heavy' ⟹ *səŋkowos°rka-* 'to be heavier'.

Truncation

Certain suffixes and suffix combinations with two initial consonants are subject to the process of truncation, whereby the first consonant is lost when attached to a stem with a final consonant. The cases include the second- and third-person accusative and genitive possessive suffix combinations, e.g. *myaq* 'tent' : poss. nom.sg3sg *myata* = acc.sg = gen.sg (cf. *ya* 'earth' : nom.sg *yada* : acc.sg *yamta* : gen.sg *yanta*), and the necessitative and durative suffixes, e.g. *ŋəm-* 'to eat' : nec. subj.3sg *ŋəmcu* (cf. *pya-* 'to begin' : *pyabcu*), *myiq-* 'to give' ⟹ dur. *myipə-* (cf. *xo-* 'to find' ⟹ *xompə-*).

Palatalization and depalatalization

There are two processes which affect the palatality of a consonant: (i) **obligatory** palatalization or depalatalization of a consonant occurs in connection with certain morphological processes; (ii) **optional** palatalization concerns the initial consonants of certain suffixes. In both cases, the

non-palatal vs. palatal pairs of consonants are *m* ↔ *my*, *n* ↔ *ny*, *ŋ* → *ÿ*, *p* ↔ *py*, *t* ↔ *ty*, *k* → *cy*, *b* → *by*, *d* ↔ *dy*, *c* ↔ *cy*, *s* ↔ *sy*, *x* → *sy*, *w* ↔ *by*, *r* ↔ *ry*, *l* ↔ *ly*; ↔ indicates both palatalization and depalatalization, → only palatalization. There is a tendency for palatality within the stem to favour palatalization, e.g. *nyum* 'name' : *nyubye* vs. *ŋum* 'grass' : *ŋuwo*, but there are counterexamples such as *syer* 'thing' : *syero* or *tər* 'body-hair' : *tərye*. The two palatality processes do not necessarily conform, cf. *syer* : pros.sg *syerm°nya*.

Obligatory palatalization and depalatalization are met with in four contexts:

  (i) accusative plural stem formation, e.g. *ŋuda* 'hand' : acc.pl *ŋudyi*, *tyonya* 'fox' : *tyon°*, *myir* 'price' : *myirye*, and a number of derivational operations, e.g. *ŋədyim-* 'to appear' ⇒ freq. *ŋədyibyer-*;
  (ii) general finite stem formation for *m*-stems, e.g. *ŋədyim-* 'to appear' : subj.3sg *ŋədyimya*;
  (iii) alteration stem inflection, e.g. *xonyo-* 'to sleep' : subj.3sg *xoni*;
  (iv) the dual personal suffix, e.g. poss. nom.sg2du {-r} + {-yih} (cf. 2sg {-r} + {-ə} and 2pl {-r} + {-aq}).

Optional palatalization yields suffixal variants with a palatal consonant. It occurs in conjunction with certain suffixes when attached to a number of stems, which require lexical marking. Examples of nominal forms include *yiq* 'water' : loc.sg *yik°nya* : pros.sg *yiqm°nya* : poss. nom.sg3sg *yitya* : 3pl *yityoh*, *syí* 'hole' : loc.sg *syíx°nya* : pros.sg *syíw°nya*; ord. *nyabyimtyey°* 'second' (cf. *nyax°romtey°* 'third'). Examples of verbal forms involve mainly the imperfective participle, e.g. *yilye-* 'to live' : *yilyenya*, *myih-* 'to go' : *myintya*, *pæər-* 'to do' : *pæ°rtya*, *pæwə-* 'to be dark' : *pæw°dya*. A non-palatalized variant is always possible, though a few forms are so lexicalized that such variants are rare, e.g. *pəryidyenya* 'black', *yəŋk°nya* 'excessive (used for the second ten numerals)', *tyírtya* 'flying; (Eur.) bird'. At least the verb *xæ-* 'to depart' has forms like partic.fut *xæw°ntya* : inf.impf *xæbya* : inf.pf *xæqmya*. In the case of the negative verb *nyi-* 'not' there appear forms like subord.3sg *nyib°tya* : ind. obj.sg3sg *nyídya* : interr. subj.3sg *nyisya* : obl. subj.1sg *nyibcyaked°m*. Other verbs may occasionally have similar forms, e.g. *pyisyəh-* 'to laugh' : inf.impf *pyisy°mya*. Certain postpositions invariably have a palatal consonant in certain case suffixes, notably *nyi-* 'on' : loc. *nyinya* : pros. *nyimnya*, and *myu-* 'in' : loc. *myunya* : pros. *myumnya*.

Verbal inflection

The finite inflectional categories are mood, tense, conjugation (subjective, objective, and reflexive), number of object in the objective conjugation, person of subject, and number of subject. There are also several non-finite forms.

Mood, tense, and conjugation

Mood

According to the present count, there are sixteen moods. The formation of the indicative is based on morphological substems, the complex formation of which is presented below, while the imperative proper employs a distinct set of personal suffixes. Some of the personal suffixes in the optative submood are also different from those in the indicative; contrary to the former view of the author, the optative in the subjective conjugation and in the objective conjugation when the object is in the singular is formed independently of the general finite stem found in the

indicative, as discussed in more detail later. The other moods have characteristic substems with straightforward suffixal markers, and the same personal suffixes as in the indicative. The moods, exemplified, where possible, by the third person singular of the verb *nú-* 'to stand', are:

(i) the indicative, e.g. *nú°* '(s)he stands';
(ii) the imperative, comprised of three submoods, which are
  (a) the hortative {-xə} in the first person, e.g. 1sg *núxəd°m* 'let me stand';
  (b) the imperative proper in the second person, e.g. 2sg *núq* 'stand!';
  (c) the optative in the third person, e.g. 3sg *nú°ya* 'let him/her stand';
(iii) the conjunctive {-ÿi}, e.g. *núyi* '(s)he will stand (request)';
(iv) the necessitative {-psu}, e.g. *núbcu* '(s)he shall stand (demand)';
(v) the interrogative {-sa}, e.g. *núsa* 'did (s)he stand?';
(vi) the imperfective probabilitative {-n~ta} + {-qxe~iə}, e.g. *núnaki°* '(s)he may stand';
(vii) the perfective probabilitative {-me~iə} + {-qxe~iə}, e.g. *núweki°* '(s)he may have stood';
(viii) the obligative {-psa} + {-qxe~iə}, e.g. *núbcaki°* '(s)he should stand (expectation)';
(ix) the imperfective approximative {-n~ta} + {-rəxa}, e.g. *núnarəxa* '(s)he seems to stand';
(x) the perfective approximative {-me~iə} + {-rəxa}, e.g. *núwerəxa* '(s)he seems to have stood';
(xi) the futuritive approximative {-mənta} + {-rəxa}, e.g. *núw°ntar°xa* '(s)he seems to be going to stand';
(xii) the superprobabilitative {-ma} + {-n~təh} + {-xəbya}, e.g. *núwan°ŋkəbya* '(s)he probably stands';
(xiii) the hyperprobabilitative {-rəxa} + {-me~iə}, e.g. *núr°xawi°* '(s)he must have stood';
(xiv) the narrative {-me~iə}, e.g. *núwi°* '(s)he has stood';
(xv) the reputative {-məna}, e.g. *núw°na* '(s)he is supposed to stand';
(xvi) the desiderative {-rəwa}, e.g. *núr°wa* '(s)he is encouraged to stand'.

The mood system could of course be presented more hierarchically. Many moods have complex markers consisting of participial and derivational suffixes, and their morphophonological behaviour depends on the individual suffixes. For instance, the choice of the suffix-initial consonant in the imperfective probabilitative and approximative follows that of the imperfective participle. The superprobabilitative mood, in turn, consists of the dative of the imperfective infinitive and the noun *xəbya* 'sign; sense'. However, as long as the formations in question are, on the one hand, conjugated in all conjugations, and do not, on the other hand, possess non-finite forms, their status as moods is not in question. The habitual, regarded as a derivative in this description, may dialectally behave like a mood. There is also a peculiar construction with a postverbal negative verb plus a clitic particle that could be regarded as a compound mood, e.g. *ŋæq nyí-w°h* 'it certainly is', *maq nyí-w°h* '(s)he certainly said' (also notice the difference from the connegative forms *ŋaq* and *man°q*).

Tense

The inflectional category of tense comprises two tenses, the aorist and the preterite. While the aorist has no marking, the preterite is expressed by the suffixation of {-syə} after the personal suffixes, e.g. *nú-* 'to stand' : aor. 1sg *núəd°m* : 2sg *núən°* : 3sg *nú°* 'I : you : (s)he stand(s)' : pret. 1sg *nú°dəmcy°* : 2sg *nú°nəsy°* : 3sg *núəsy°* 'I : you : (s)he stood'. Despite the morphotactic peculiarity of preterite suffixation, there is no doubt about its true inflectional status. While the category of tense exists in conjunction with the indicative, conjunctive, and narrative, it does not appear in the imperative, interrogative, or necessitative, and is marginal in

the other moods.

All verbs are divided into two groups called aspectual classes with regard to their temporal relations. For momentaneous or perfective verbs, the indicative aorist expresses immediate past, and the indicative preterite expresses more remote past. For continuous or imperfective verbs, the indicative aorist expresses present, and the indicative preterite expresses simple past. In the conjunctive, the aorist expresses conditional future, and the preterite expresses conditional past. In the narrative, the opposition is basically perfect vs. pluperfect.

The past expressed by the indicative preterite always refers to the speaker's personal experience of the action. For the expression of an action which was not observed but the results of which are still observable, the narrative mood is used.

For the expression of non-conditional futurity, a particular derivative is used, as explained below. The future derivative co-occurs with inflectional tense, e.g. *ladə-* 'to beat' : fut. obj.sg1sg pret. *lad°ŋkuwəsy°* 'I was going to beat him/her'.

Conjugation

Verbs belong to one of four conjugational classes:

  (i) Intransitive verbs have only the subjective conjugation.
  (ii) Transitive verbs have both the subjective and objective conjugation.
  (iii) Reflexive verbs have only the reflexive conjugation.
  (iv) Transitive-reflexive verbs have all three conjugations.

The category of conjugation is connected with four sets of personal suffixes:

  (i) The first set is used in the subjective conjugation.
  (ii) The second set is used in the objective conjugation when the object is in the singular.
  (iii) The third set is used in the objective conjugation when the object is in the dual or plural.
  (iv) The fourth set is used in the reflexive conjugation.

Morphological substems

General finite stem

The general finite stem is used in the indicative and optative moods either in the objective conjugation when the object is in the plural or in the reflexive conjugation.

As explained below, the optative forms in the subjective conjugation and in the objective conjugation when the object is in the singular do not employ the substem discussed in this section.

(i) The vowel stems add {-ə}, except before a suffix with an initial *x*, where {-ŋa} is added, e.g. *to-* 'to come' : subj.3sg *to°* : 3du *toŋax°h*, *yilye-* 'to live' : *yilye°* : *yilyeŋax°h*.

(ii) The alteration stems change their final vowel into *i* or *u*, occasionally accompanied by a change of palatality of the preceding consonant, e.g. *nyenə-* 'to be angry' : subj.3sg *nyeni* : 3du

nyenix°h, *pæwə-* 'to be dark' : subj.3sg *pæbyi*, *ŋədyə-* 'to be visible' : *ŋədyi*, *yakə-* 'to itch' : *yaku*, *ŋeso-* 'to camp' : *ŋesi*, *xonyo-* 'to sleep' : *xoni*, *ləbcyo-* 'to stick together' : *ləbcyi*, *yaŋko-* 'to lack' : *yaŋku*, *pyiryencyo-* 'to do cooking' : *pyiryencyu* (notice *toxo-* 'to learn' : *tuxu*, *yoxo-* 'to disappear' : *yuxu*).

(iii) The consonant stems add {-ŋa}, e.g. *pæər-* 'to do' : obj.sg3sg *pæ°rŋada*. In *m*-stems, the *ŋ* of the suffix is lost, e.g. *ŋəm-* 'to eat' : *ŋəmada*. The verb *mah-* 'to say' exhibits an irregular vowel stem, viz subj.3sg *ma*, but 3du *maŋax°h* (~ *max°h*).

(iv) The irregular stems exhibit partial suppletion, viz *xæ-* 'to depart' : subj.3sg *xəya* : 3du *xəyax°h*, *ŋæ-* 'to be' : *ŋa* : *ŋax°h*. The negative verb is also exceptional, viz *nyi-* 'not' : *nyí* : *nyíx°h*.

Dual object substems

The dual object substems are formed by adding {-xəÿu} to the basic stem in the imperative proper, the general finite stem in the indicative and optative, and the respective modal substems in other moods, e.g. *xada-* 'to kill' : imp. obj.du2sg *xadaxəyun°q* : ind. obj.du3sg *xadaŋax°yuda* : interr. obj.du3sg *xadasax°yuda*, (an alteration stem) *tampə-* 'to be giving' : ind. obj.du3sg *tampyixəyuda*.

Special finite stem

The special finite stem is used in the indicative and optative moods either in the objective conjugation when the object is in the plural or in the reflexive conjugation.

(i) The *ə*-stems change their final vowel into *i* and add {-ə}, except before a suffix with an initial *x* (present, incidentally, only in the reflexive conjugation, so that this variant does not exist for transitive verbs), where {-ÿə} is added, e.g. *yurkə-* 'to stand up' : refl.3sg *yurki°q* : 3du *yurk°yəx°h*.

(ii) The other vowel and all consonant stems simply add {-ÿə}, e.g. *peda-* 'to be tired' : refl.3sg *pedey°q*, *səl-* 'to return' : *səlÿ°q*.

(iii) For the alteration stems, the general finite stem is used instead, e.g. *tampə-* 'to be giving' : obj.pl2sg *tampyid°* 'you are giving them' (cf. obj.sg2sg *tampyir°*).

Special modal substems

The special modal substems correspond to the special finite stem of the indicative and optative. They are formed from modal substems mostly by a final vowel change, as exemplified by the obj.pl2sg forms of *xada-* 'to kill'.

(i) The interrogative: {a} → |yəl ~ (typical of Western dialects) |yil, e.g. *xadasyəd°* ~ *xadasyid°* 'did you kill them?' (cf. obj.sg2sg *xadasar°*).
(ii) In the objective conjugation the probabilitatives, obligative, hyperprobabilitative, and narrative: {e~iə} → |iəl, e.g. narr. *xadawiəd°* 'you have killed them' (cf. *xadawer°*).
(iii) The approximatives, superprobabilitative, reputative, and desiderative: {a} → |il, e.g. appr.impf *xadanar°xid°* 'you appear to kill them' (cf. *xadanar°xar°*) : sup. *xadawan°ŋkəbyid°*

'you probably kill them' (cf. *xadawan°ŋkəbyar°*).

(iv) The hortative, conjunctive, and necessitative, and in the reflexive conjugation, the moods listed in (ii): no change from the modal substem, e.g. conj. obj.pl2sg *xadayid°* 'you will kill them' (cf. obj.sg2sg *xadayir°*), *səna-* 'to jump' : narr. refl.2sg *sənawen°* : 3sg *sənawi°q*.

Person and number

Indicative

In the subjective conjugation, the first set of personal suffixes is attached to the general finite stem, e.g. (a transitive-reflexive verb) *yempəq-* 'to dress' : subj.1sg (*xíbyaxəwam*) *yemp°qŋad°m* 'I dressed (somebody)' : 2sg *yemp°qŋan°* : 3sg *yemp°qŋa* : 1du *yemp°qŋanyih* : 2du *yemp°qŋadyih* : 3du *yemp°qŋax°h* : 1pl *yemp°qŋawaq* : 2pl *yemp°qŋadaq* : 3pl *yemp°qŋaq*.

In the objective conjugation with a singular object, the second set of personal suffixes is attached to the general finite stem, e.g. obj.sg1sg *yemp°qŋaw°* 'I dressed him/her' : 2sg *yemp°qŋar°* : 3sg *yemp°qŋada* : 1du *yemp°qŋamyih* : 2du *yemp°qŋaryih* : 3du *yemp°qŋadyih* : 1pl *yemp°qŋawaq* : 2pl *yemp°qŋaraq* : 3pl *yemp°qŋadoh*.

In the objective conjugation with a dual object, the third set of personal suffixes is attached to the dual object substem, e.g. obj.du1sg *yemp°qŋax°yun°* 'I dressed them (two)' : 2sg *yemp°qŋax°yud°* : 3sg *yemp°qŋax°yuda* : 1du *yemp°qŋax°yunyih* : 2du *yemp°qŋax°yudyih* : 3du *yemp°qŋax°yudyih* : 1pl *yemp°qŋax°yunaq* : 2pl *yemp°qŋax°yudaq* : 3pl *yemp°qŋax°yudoh*.

In the objective conjugation with a plural object, the third set of personal suffixes is attached to the special finite stem of the vowel and consonant stems, e.g. obj.pl1sg *yemp°qÿən°* 'I dressed them (many)' : 2sg *yemp°qÿəd°* : 3sg *yemp°qÿəda* : 1du *yemp°qÿənyih* : 2du *yemp°qÿədyih* : 3du *yemp°qÿədyih* : 1pl *yemp°qÿənaq* : 2pl *yemp°qÿədaq* : 3pl *yemp°qÿədoh*, and to the general finite stem of the alteration stems, for which no special finite stem exists.

In the reflexive conjugation, the fourth set of personal suffixes is attached to the special finite stem, e.g. refl.1sg *yemp°qÿəw°q* 'I got dressed' : 2sg *yemp°qÿən°* : 3sg *yempəqÿ°q* : 1du *yemp°qÿənyih* : 2du *yemp°qÿədyih* : 3du *yemp°qÿəx°h* : 1pl *yemp°qÿənaq* : 2pl *yemp°qÿədaq* : 3pl *yemp°qÿəd°q*.

Table 4. • *The sets of personal suffixes in the indicative and most other moods*

	subj.	obj.sg	obj.du–pl	refl.
1sg	-t-əm	-m-ə	-n-ə	-m-əq
2sg	-n~tə	-r-ə	-t-ə	-n~tə
3sg	∅	-t-a	-t-a	-q
1du	-n-yih	-m-yih	-n-yih	-n-yih
2du	-t-yih	-r-yih	-t-yih	-t-yih
3du	-xəh	-t-yih	-t-yih	-xəh
1pl	-m-aq	-m-aq	-n-aq	-n-aq
2pl	-t-aq	-r-aq	-t-aq	-t-aq
3pl	-q	-t-oh	-t-oh	-t-əq

Note 1: (Morpho)phonological processes not executed.

Note 2: The subj.1sg suffix is {-m} + {-məh} rather than {-t} + {-əm} in the European dialects.

Imperative proper

The imp. subj.2sg is identical with the connegative, e.g. *yempəq-* 'to dress' : (*xíbyaxəwa*) *yempəs°q* 'dress (somebody)'. The other 2sg forms exhibit peculiar suffixes, attached to the basic stem, viz obj.sg {-tə}, obj.du–pl {-n} + {-q}, and refl. {-t} + {-q} (the latter two requiring vowel stem formation twice), e.g. obj.sg *yempət°* 'dress him/her' : obj.du *yemp°kəyun°q* 'dress them (two)' : obj.pl *yemp°sən°q* 'dress them (many)' : refl. *yemp°səd°q* 'get dressed'. The 2du and 2pl forms are replaced by the respective indicative forms. The indicative forms of the stem *nyo-* perform the imperative function of *nyi-* 'not', e.g. *nyon° túq* 'do not come', *nyor° xadaq* 'do not kill it'.

Optative

It was thought before that the general finite stem was also used in the optative. In reality, as first pointed out by Jarmo Alatalo, while some of the optative forms superficially look like they shared the same substem, e.g. *yilye°ya* 'let him/her live' (cf., for instance, *yilye°waq* 'we live', the deep form of the optative marker is {-ŋə} rather than *{-ŋa}, so that, for example, the correct form for 'let him/her do it' is *pæ°rŋəmta* instead of **pæ°rŋamta* as suggested in the original article.

Table 5. • *The sets of personal suffixes in the optative*

	subj.	obj.sg	obj.du–pl	refl.
3sg	-ÿa	-m-t-a	-tə-m-t-a	-m-t-əq
3du	-ÿa-xəh	-m-t-yih	-tə-m-t-yih	-xə-m-t-əq
3pl	-ÿa-q	-m-t-oh	-tə-m-t-oh	-tə-m-t-əq

Note 1: (Morpho)phonological processes not executed.

Note 2: The obj.du–pl forms are not used in the Siberian dialects, the corresponding indicative forms being used instead.

Other moods

The same sets of personal suffixes as in the indicative are attached to modal substems, exemplified in the list of moods.

Non-finite forms

There are two infinitives (imperfective and perfective), four participles (imperfective, perfective, negative, futuritive), two gerunds (modal and final), three subordinates (the subordinative, the auditive, and the evasive), and a connegative. There are no verbal nouns of the *actio* or *actor* type, but the infinitives and participles fulfil their function as well. The infinitives and participles are, nevertheless, verbal inflectional forms rather than deverbal nominal derivatives,

since they take normal verbal qualifiers such as accusative object. The infinitives and participles are inflected like nouns; contrary to the former view of the author, predicative forms of infinitives and participles are also used in syntactically marked contexts. The gerunds are not further declinable. The subordinates have an absolute form and possessive forms with the oblique singular co-affix {-n}; it seems that the auditive may be further inflected in tense.

Infinitives

The imperfective infinitive has the suffix {-ma}, e.g. *nú-* 'to stand' : *núwa*.

The perfective infinitive has the suffix {-qma}, which for the vowel and alteration stems is simply added to the stem, e.g. *nú-* 'to stand' : *núqma*. For the consonant stems {-o} is added first, e.g. *pǽər-* 'to do' : *pǽ°roqma*. The unique glide stem *myí-* 'to prepare' shows the suffix variant {-ye} before {-qma}, viz *myíyeqma*.

Participles

The imperfective participle has the variable suffix {-n~ta}. The vowel stems use |na|, e.g. *nú-* 'to stand' : *núna*, except *to-* 'to come' : *toda* (also *tona*). Both the consonant and the alteration stems have |ta|, e.g. *pǽər-* 'to do' : *pǽ°rtya*, *xonyo-* 'to sleep' : *xonyoda*. Of the irregular stems, *xæ-* 'to depart' prefers *xæna*, while *ŋæ-* 'to be' shows *ŋæda*. The negative verb *nyi-* 'not' always has *nyinya*.

The perfective participle has the suffix {-me~iə}, e.g. *nú-* 'to stand' : *núwi°*.

The negative participle has the suffix {-mətawa(ÿə)}, e.g. *nú-* 'to stand' : *núw°dawey°*.

The futuritive participle has the suffix {-mənta}, e.g. *nú-* 'to stand' : *núw°nta*.

Gerunds

The modal gerund has the suffix {-syə} for the consonant stems and monosyllabic vowel stems, e.g. *pǽər-* 'to do' : *pæərcy°*, *nú-* 'to stand' : *núsy°*, and the suffix {-ə} for the polysyllabic vowel stems, including the alteration stems, e.g. *yilye-* 'to live' : *yilye°*, *xonyo-* 'to sleep' : *xonyo°*. In the Western dialects, however, the suffix {-syə} is invariably used.

The final gerund has the suffix {-mənsyə}, e.g. *nú-* 'to stand' : *núwəncy°* 'in order to stand'.

Subordinates

The subordinative has either the suffix {-pəq} or the suffix combination {-pəq} + {-na}, e.g. *nú-* 'to stand' : 3sg *núb°ta* or *núb°qnanta* 'if/when (s)he stands'.

The auditive has the suffix variants {-manoh} and {-moh}, e.g. *ye-* 'to ache' : 3sg *yewanonta ~ yewonta* 'it feels like it aches'.

The evasive has the suffix {-moh} followed by the ablative {-xə} + {-tə}, e.g. *nú-* 'to stand' : 3sg *núwoŋkəd°nta* 'lest (s)he stands'.

Connegative

The connegative, used with the negative verbs, notably *nyi-* 'not', has the suffix {-q}. The subj. 2sg imperative is formally identical.

(i) Vowel stems generally do not require anything else, e.g. *yilye-* 'to live' : *yilyeq*, but notice the *e~i*-stem *me-* 'to be' : *miq*, and the irregular *to-* 'to come' : *túq*.

(ii) Alteration stems have their final vowel changed into *u*, the preceding consonant being palatal if either or both of the basic stem and the general finite stem have a palatal consonant before the final vowel, e.g. *nyenə-* 'to be angry' : subj.3sg *nyeni* : conneg. *nyenuq*, *pæwə-* 'to be dark' : *pæbyi* : *pæbyuq*, *ŋeso-* 'to camp' : *ŋesi* : *ŋesuq*, *xonyo-* 'to sleep' : *xoni* : *xonyuq* (notice also *toxo-* 'to learn' : *tuxuq*, *yoxo-* 'to disappear' : *yuxuq*).

(iii) The irregular stems exhibit decided irregularities, viz *xæ-* 'to depart' : *xany°q*, *ŋæ-* 'to be' : *ŋaq*.

(iv) Consonant stems have the regular vowel stem formation, dictated by the shape of the suffix, as the only complication, e.g. *ŋəm-* 'to eat' : *ŋəw°q*.

Nominal inflection

The nominal inflectional categories are number, case, declension (absolute, possessive, and predestinative), and, in the non-absolute declensions, person and number of possessor or predestinator. Besides nominal declension, there are also predicative forms of nouns, or the nominal conjugation.

Number and case

There are three numbers, singular, dual, and plural. Of the seven cases, the grammatical cases (nominative, accusative, and genitive) combine with all three numbers, while the local cases (dative, locative, ablative, and prosecutive) appear only in singular and plural, the missing local dual forms being replaced by expressions with the corresponding case forms of the postposition *nya-* 'at' No morphological process takes place in the nominative singular, e.g. *myaq* 'tent'. Some forms have simple suffixes, e.g. acc.sg *myad°m* : gen.sg *myad°h* : pros.sg *myaqm°na* : nom.du *myak°h* = acc.du = gen.du : nom.pl *myad°q*. Most local forms exhibit a system of multiple suffixation, e.g. dat.sg *myat°h* : loc.sg *myak°na* : abl.sg *myakəd°* : dat.pl *myak°q* : loc.pl *myak°qna* : abl.pl *myakət°*. The accusative plural stem is used for the rest, e.g. acc.pl *myado* : gen.pl *myadoq* : pros.pl *myadoqməna*. However, the prosecutive plural of monosyllabic vowel stems is based either invariably on the basic stem, e.g. *pya* 'tree' : *pyaqm°na* (not *pyíqm°na*), *li* 'bone' : *leqm°na* (not *líqm°na*), or variably on both stems, e.g. *ya* 'earth' : *yaqm°na ~ yoqm°na*.

Accusative plural stem

Vowel stems either require no morphological process or have their final vowel changed. Consonant and glide stems attach a vowel to the final consonant or glide.

The vowel stems requiring no change in the form of the accusative plural include

(i) most monosyllabic stems, e.g. *to* 'lake' : *to*, *nyú* 'child' : *nyú*;
(ii) some *ə*-stems, e.g. *sæw°* 'eye' : *sæw°*;
(iii) *i*- and *u*-stems, e.g. *ŋesi* 'camp' : *ŋesi*, *súyu* 'calf' : *súyu*.

Other vowel stems show various vowel changes:

   (i) monosyllabic *a*- and *e~i*-stems: {a} → |o|, {ya} → |yíl, {e~i} → |íl, e.g. *ya* 'earth' : *yo*, *nya* 'friend' : *nyí*, *ti* 'reindeer' : *tí* (: poss. nom.sg3sg *teda* : nom.pl *tída*);
   (ii) some *ə*-stems: {ə} → |o|, {yə} → |yo|, {ə} → |ye|, e.g. *xər°* 'knife' : *xəro*, *nyany°* 'bread' : *nyanyo*, *syun°* 'steam' : *syunye*;
   (iii) some *a*-stems: {a} → |əl, {ya} → |əl, {ya} → |yəl, e.g. *xoba* 'fur' : *xob°* (notice *xasawa* 'man, male' : *xasyew°*), *tyonya* 'fox' : *tyon°*, *yesya* 'iron, money' : *yesy°*;
   (iv) other *a*-stems: {a} → |il, {a} → |yil, {ya} → |yil, (two words only) {ya} → |el, e.g. *ŋaw°ka* 'pet reindeer' : *ŋaw°ki*, *ŋuda* 'hand' : *ŋudyi* (notice *yəxa* 'river' : *yesyi*), *ŋodya* 'berry' : *ŋodyi*, *xalya* 'fish' : *xale* (and *yalya* 'day' : *yale*);
   (v) *e*- and *o*-stems: {e} → |il, {o} → |ul, e.g. *yake* 'smoke' : *yaki*, *ŋəno* 'boat' : *ŋənu*;
   (vi) alternating stems: {e~iə} → |iəl, {o~uə} → |uəl, {∅~ÿə} → |ÿəl, e.g. *pəni°* 'dress' : *pəni°* (: poss. nom.sg3sg *pəneda* : nom.pl3sg *pəni°da*), *tyuku°* 'this' : *tyuku°* (: *tyukoda* : *tyuku°da*), *ŋopoy°* 'the one' : *ŋopoy°* (: *ŋopoda* : *ŋopoy°da*).

It was thought before that *i*- and *u*-stems might dialectally also exhibit vowel change, yielding acc.pl *ŋesí, *súyú, but it now seems clear that the high stretched vowels do not appear in non-initial syllables at all.

Consonant stems add {-o} or {-ye}, e.g. *myaq* 'tent' : *myado*, *nyum* 'name' : *nyubye*. Glide stems follow the consonant stems, viz *xa* 'ear' : *xawo*, *yí* 'wits' : *yíbye*, *syo* 'throat' : *syoyo*, *xəbyi* 'Khanty; servant' : *xəbyiye* Notice that the base used for *ŋəmke* 'what' is in this case *ŋəm-*, yielding acc.pl *ŋəwo*.

Possessive declension

There are forms for three persons and three numbers of the possessor for each absolute form. They are formed through complex suffixation, with number and case suffixes partly different from the absolute ones. The accusative plural stem is used in the nominative plural, too. For example: *ya* 'earth' : nom.sg1sg *yaw°* : 2sg *yar°* : 3sg *yada* : 1du *yamyih* : 2du *yaryih* : 3du *yadyih* : 1pl *yawaq* : 2pl *yaraq* : 3pl *yadoh*; acc.sg3sg *yamta* : gen.sg *yanta* : dat.sg *yax°nta* : loc.sg *yax°nanta* : abl.sg *yax°dənta* : pros.sg *yaw°nanta* : nom.du *yax°yuda* = acc.du : gen.du *yax°yuta* : nom.pl *yoda* = acc.pl : gen.pl *yota* : dat.pl *yax°ta* : loc.pl *yax°qnata* : abl.pl *yax°təta* : pros.pl *yaqm°nata* ~ *yoqm°nata*.

Predestinative declension

There are forms for three persons and three numbers of the predestinator for each singular grammatical case form of the absolute declension. They are formed by suffixing {-tə}, followed by the respective possessive suffixes. For example: *xər°* 'knife' : nom.3sg *xər°dəda* : acc. *xər°dəmta* : gen. *xər°dənta* 'a knife for him/her'.

Table 6. • *Case, number, and possessive suffixes*

		declension absolute	possessive		person of possessor 1	2	3
sg	nom.	∅	∅-	→	-m-	-r-	-t-
	acc.	-m	∅-	→	-m-	-m-t-	-m-t-
	gen.	-h	∅-	→	-n-	-h-t-	-h-t-
	dat.	-n~tə-h	-xə-	→	-n-	-h-t-	-h-t-
	loc.	-xə-na	-xə-na-	→	-n-	-h-t-	-h-t-
	abl.	-xə-tə	-xə-tə-	→	-n-	-h-t-	-h-t-
	pros.	-məna	-məna-	→	-n-	-h-t-	-h-t-
du	nom.	-xəh	-xəyu-	→	-n-	-t-	-t-
	acc.	-xəh	-xəyu-	→	-n-	-t-	-t-
	gen.	-xəh	-xəyu-	→	-n-	-q-t-	-q-t-
pl	nom.	-q	¥-	→	-n-	-t-	-t-
	acc.	¥	¥-	→	-n-	-t-	-t-
	gen.	¥-q	¥-q-	→	-n-	-q-t-	-q-t-
	dat.	-xə-q	-xə-q-	→	-n-	-q-t-	-q-t-
	loc.	-xə-q-na	-xə-q-na-	→	-n-	-q-t-	-q-t-
	abl.	-xə-q-tə	-xə-q-tə-	→	-n-	-q-t-	-q-t-
	pros.	(¥)-q-məna	(¥)-q-məna-	→	-n-	-q-t-	-q-t-
					↓	↓	↓
		number of possessor		sg	-ə	-ə	-a
				du	-yih	-yih	-yih
				pl	-aq	-aq	-oh

Note 1: (Morpho)phonological processes not executed; preconsonantal |h| represents an archiphoneme for *n* and *ŋ*, i.e. |ht| → *nt*, while |qt| → *t* and postvocalic |t| → *d*; the formation of the accusative plural stem symbolized by ¥.

Note 2: At least for most functions, the 1du possessive forms take over the 1sg forms in the Siberian dialects.

Nominal conjugation

When predicates, absolute forms are conjugated for person, and both absolute and possessive forms are conjugated for tense. In the aorist, the third-person forms of these predicative forms of nouns coincide with the corresponding nominative forms of declension. For example: *nye* 'woman' : predic. aor. 1sg *nyed°m* : 2sg *nyen°* : 3sg *nye* 'I am : you are : she is a woman' : pret. 1sg *nyedəmcy°* : 2sg *nyenəsy°* : 3sg *nyesy°* 'I was : you were : she was a woman', *nya* 'friend' : poss. sg1sg aor. *nyaw°* : pret. *nyawəsy°* '(s)he is : was my friend' : pl1sg aor. *nyín°* : pret. *nyínəsy°* 'they are : were my friends'.

Personal pronouns

Table 7. • *The inflection of the personal pronouns*

```
nom.   1sg   məny°        2sg   pidər°        3sg   pida
       1du   mənyih       2du   pid°ryih      3du   pidyih
       1pl   mənyaq       2pl   pid°raq       3pl   pidoh

acc.   1sg   syiqm°       2sg   syit°         3sg   syita (~ syitya)
       1du   syid°nyih    2du   syid°dyih     3du   syid°dyih
       1pl   syid°naq     2pl   syid°daq      3pl   syid°doh

gen.   1sg   syiqn°       2sg   syit°         3sg   syita (~ syitya)
       1du   syid°qnyih   2du   syid°tyih     3du   syid°tyih
       1pl   syid°qnaq    2pl   syid°taq      3pl   syid°toh
```

The 1sg variants acc. *syiqmyih* : gen. *syiqnyih* are common especially in the Eastern dialects. The nom.2–3 stem has an Eastern variant with *pə-* and a further Far Eastern variant with *pu-* instead of *pi-*. That the forms have inner morphological structure is seen in derivation, e.g. *məny°ryinaq* 'only we', *pid°ryidoh* 'only they'. The local case forms are taken over by the possessive forms of the postposition *nya-* 'at'. The nominative forms are used only for emphasis, and can in that role occur also before the accusative and genitive forms as well as the postpositional forms.

Adverbs and postpositions with partial declension

There are several groups of adverbal stems, each with particular categories of nominal declension. For those with a local function, a special set of local case suffixes exists, viz dat. {-h}, loc. {-na}, abl. {-tə}, and pros. {-mna}, e.g. *nyah* 'to' : *nyana* 'at' : *nyad°* 'from' : *nyamna* 'along, about', *nyih* 'onto' : *nyinya* 'on' : *nyid°* 'off' : *nyimnya* 'over'.

Local postpositions like *nya-* 'at', *nyi-* 'on', *myu-* 'in', *ŋilə-* 'under', *tyaxə-* 'behind', *pú-* 'after', *yeq-* 'towards', *xi-* 'near', *yer-* 'in the middle of', *nyerə-* 'before' have both absolute case forms and a full possessive declension, formed with the same co-affix as the nominal singular local case forms, e.g. *nyamnanta* 'about it', *nyinyantoh* 'on them'.

A number of nominal stems occur in conjunction with *nya-*, e.g. *xæw°-nya-* 'beside'. Postpositional stems often have compound forms with *nya-*, e.g. *myu-nya-* 'inside'. There are also derived stems like *nyayuə-* and *nyaku-* from *nya-* 'at'.

Local adverbs have only absolute case forms, e.g. *tyuqə-* 'up' : *tyuq°h* : *tyuq°na* : *tyuqəd°* : *tyuq°mna*, *təsyi-* 'down' : *təsyih* : *təsyina* : *təsyid°* : *təsyimna*. This group includes several compound forms with *nya-*, e.g. *tə-nya-* 'there', *xə-nya-* 'where', *syata-nya-* 'left', *məxa-nya-* 'right'.

Pronominal stems in their local case forms also render an adverbial meaning, e.g. *tyuku°* 'this' : *tyukoxəna* 'here'. Some nominal stems are lexicalized in their adverbial function, but they still exhibit normal nominal case inflection, occasionally even in the plural, e.g. *ŋa-* 'far' : *ŋax°q* : *ŋax°qna* : *ŋaxət°* : *ŋaqm°na*.

Non-local postpositions have absolute and possessive forms but no case inflection, e.g. *xaw°na*

'except' : *xaw°nanta* 'except him/her' (a petrified nominal prosecutive).

There are also adverbs with only possessive forms, often fulfilling the function of conjunctions of other languages, e.g. *ŋədy°bya-* 'because' : *ŋədy°byanta* 'because of that'. From the morphological point of view, the reflexive pronoun *xər-* (formerly phonemized as **xərəq-* which may still be valid in some dialects) belongs here, e.g. *xərta* (rather than **xər°ta*) '(s)he himself/herself'.

Derivation

Deverbal nouns

(i) Local nouns, e.g. *xanye-* 'to hunt' ⟹ *xanyeləwa* 'hunting ground', *yoər-* 'to fish' ⟹ *yo°ləwa* 'fishing hamlet'.

(ii) Instrumental nouns, e.g. *ŋædalyo-* 'to travel' ⟹ *ŋædalyosy°h* 'travelling sledge', *pad°nə-* 'to be writing' ⟹ *pad°nəbcy°h* 'pen', *yenyer-* 'to shoot' ⟹ *yenyercy°h* 'gun'.

(iii) Potential nouns, usually in possessive forms, e.g. *xetə-* 'to tell' ⟹ *xet°yiq* 'possibility to tell', *yoq-* 'to lose' ⟹ *yoqÿiq* : poss.sg3sg *yoqÿita* 'the possibility of losing it'.

(iv) Potential adjectives, e.g. *tæwə-* 'to reach' : *tæw°nana* 'within reach'.

(v) Inclinative adjectives, e.g. *pyínə-* 'to be afraid' ⟹ *pyín°xad°* 'coward'.

(vi) Other deverbal nouns, e.g. *pyirye-* 'to boil' ⟹ *pyiryebco* 'something boiled' ⟹ *pyiryebcod°* 'something to be boiled'; *yilye-* 'to live' ⟹ *yilyebc°* 'subsistence'; *xanye-* 'to hunt' ⟹ *xanyeya* 'hunting occupation', *yoər-* 'to fish' ⟹ *yo°rÿa* 'fishing occupation'.

Denominal verbs

(i) Possessive verbs, e.g. *səwa* 'cap' ⟹ *səbyiq-* 'to have a cap, to use as a cap'.

(ii) Translative verbs, e.g. *ŋar°* 'largeness' ⟹ *ŋarəm-* 'to become larger'.

(iii) Captative verbs, e.g. *noxa* 'Arctic fox' ⟹ *nosyih-* : conneg. *nosyiy°q* 'to hunt Arctic foxes'.

(iv) Caritive verbs, e.g. *myaq* 'tent' ⟹ *myacyə-* : 3sg *myacyi* 'to be tentless'.

(v) Odorative verbs, e.g. *xalya* 'fish' ⟹ *xalyayə-* : 3sg *xalyayi* 'to smell of fish'.

Denominal adverbs

(i) Caritives, e.g. *myaq* 'tent' ⟹ *myacyiq* 'without a tent'.

(ii) Predestinatives, e.g. *ŋəno* 'boat' ⟹ *ŋənod°* 'a boat for someone'.

(iii) Essives, e.g. *li* 'bone' ⇒ *leŋe°* 'as a bone, for a bone', *syidya* 'two' ⇒ *syidyaŋe°* 'both together'.

(iv) Other denominal adverbs, e.g. *sarmyik°* 'animal, wolf' ⇒ *sarmyikəd°ryem* ~ *sarmyikəd°ryew°h* 'like a wolf'; *tyet°* 'four' ⇒ *tyet°ləd°h* 'four at a time'; *yúq* 'ten' ⇒ *yúcyan°* 'about ten'.

Denominal nouns

(i) Comitative nouns, e.g. *nye* 'woman' ⇒ *nyesawey°* 'married (man)'.

(ii) Various adjectives, e.g. *war°* 'edge, shore' ⇒ *war°xi°* '(what is) on the shore'; *war°* ⇒ *wari°* 'outermost'; *limpəd°* 'swamp' ⇒ *limp°dəlyaŋk°* 'paludified'.

(iii) Ordinal numerals, e.g. *nyax°r* 'three' ⇒ *nyax°romtey°* 'third', *tyet°* 'four' ⇒ *tyetyimtyey°* 'fourth'.

(iv) Relational nouns, for semantic reasons not used in the singular, e.g. *nya* 'friend' ⇒ du *nyas°xəh* : pl *nyas°q* 'friends (to each other)'; *nyísya* 'father' ⇒ poss. pl3pl *nyísyanədoh* 'their (respective) fathers'.

Deverbal verbs

(i) Future verbs, with an incomplete paradigm, e.g. (vowel stems and alteration ə-stems) *me-* 'to be' ⇒ *meŋko-* : subj.3sg *meŋku* 'is going to be', *nyenə-* 'to be angry' ⇒ *nyen°ŋku-*; (alteration o-stems and consonant stems) *xonyo-* 'to sleep' ⇒ *xonyodə-*, *mah-* 'to say' ⇒ *mantə-*; notice *xæ-* 'to depart' ⇒ *xan°tə-* (but *ŋæ-* 'to be' ⇒ *ŋæŋko-*), *to-* 'to come' ⇒ *tutə-*, *ta-* 'to bring' ⇒ *tətə-*.

(ii) Habitual verbs, also with an incomplete paradigm, e.g. *túr-* 'to come' freq. ⇒ *túrcy°tə-* : subj.3sg *túrcy°ti* 'is in the habit of coming' : conneg. *túrcy°tuq*.

(iii) Precative verbs, with a fragmentary paradigm, mainly used in the imperative, e.g. *to-* 'to come' ⇒ *toxər-* : imp. 2sg *toxər°q* 'please come'.

(iv) Intensive verbs, e.g. *tənya-* 'to exist' ⇒ *tənyaxəya-* 'to really exist'.

(v) Intransitive verbs, e.g. *tola-* 'to read' ⇒ *tolaŋko-* 'to do reading', *pyirye-* 'to cook' ⇒ *pyiryencyo-* ~ *pyiryeŋko-* 'to do cooking', *peh-* 'to put' ⇒ *pentə-* 'to do loading'.

(vi) Transitive verbs, e.g. *nyeseyəm-* 'to change' ⇒ *nyesey°mta-* 'to change (tr.)', *ŋədyim-* 'to appear' ⇒ *ŋədyimtye-* 'to bring forth', *tərpə-* 'to exit' ⇒ *tərp°ra-* 'to take out', *yəŋkəm-* 'to separate' ⇒ *yəŋk°mla-* 'to separate (tr.)', *tira-* 'to dry' ⇒ *tirabta-* 'to dry (tr.)'.

(vii) Imperfective verbs, e.g. *pyi-* 'to boil' ⇒ *pyinə-* 'to be boiling', *wadyo-* 'to grow' ⇒ (Western–Central) *wadyodənə-*, (Eastern) *wadyodə-* 'to be growing'.

(viii) Durative verbs, e.g. *myiq-* 'to give' ⇒ *myipə-* 'to keep giving' : subj.3sg *myipyi* : conneg.

myipyuq, *xada-* 'to kill' ⇒ *xadabə-* 'to keep killing'.

(ix) Frequentative verbs, e.g. *ŋəm-* 'to eat' ⇒ *ŋəwor-* 'to have a meal', *xayo-* 'to stay' ⇒ *xayur-* 'to remain'.

(x) Iterative verbs, e.g. *tyú-* 'to enter' ⇒ *tyúŋkə-* 'to keep entering', *ŋamtə-* 'to sit down' ⇒ *ŋamt°ŋkə-* 'to keep sitting down'.

(xi) Inchoative verbs, e.g. (vowel stems) *yilye-* 'to live' ⇒ *yilyel-* 'to start living'; (consonant and alteration stems) *pyisyəh-* 'to laugh' ⇒ *pyisy°lə-* 'to start laughing'.

(xii) Incompletive verbs, e.g. *nú-* 'to stand' ⇒ *núy°btye-* 'to stand for a while', *ŋəwor-* 'to have a meal' ⇒ *ŋəworÿəbtye-* 'to have a snack'.

(xiii) Momentative verbs, e.g. *tesə-* 'to drip' ⇒ *tes°xəl-* 'to drop'.

(xiv) Passive verbs, e.g. *xada-* 'to kill' ⇒ *xadara-* refl. 'to get killed'.

Omnibased derivatives

(i) Comparatives, e.g. *səwa* 'good' ⇒ *səwarka* 'better', *səŋkowoq-* 'to be heavy' ⇒ *səŋkowos°rka-* 'to be heavier'.

(ii) Moderatives, e.g. *ŋarka* 'big' ⇒ *ŋarkampoy°* 'rather big'.

(iii) Augmentatives, e.g. *ŋarka* 'big' ⇒ *ŋarkaqÿa* ~ *ŋarkaqÿa°* 'very big'.

(iv) Diminutives, e.g. *səqla* 'moron' ⇒ *səqlako* 'fool', *tuq* 'animal fat' ⇒ *tudako* 'mushroom', *wada* 'word' ⇒ *wadako* 'tale'.

(v) Pejoratives, e.g. *ti* 'reindeer' ⇒ *tekocya* 'poor little reindeer'; *nyenecy°h* 'person, human being' ⇒ *nyenecyənÿe* 'poor man'.

(vi) Limitatives ('only'), e.g. *ŋəmkeryi* 'whatever; thing'.

(vii) Simulatives ('as if'), e.g. *syun°rəxa* 'steam-like; blue'.

(viii) Concessives ('even'), e.g. *xíbyaxərt°* 'anybody'.

(ix) Affirmatives ('indeed'), e.g. *xíbyaxəwa* 'somebody', *xadaxəwa°* 'to kill indeed' ger.mod.

Further reading. All grammars and textbooks focus on morphology. Honti & Zaicz (1970) is a reverse listing of suffixes and suffix combinations compiled on the basis of Hajdú (1968 [²1982]) Mikola (1975) is a thorough survey of the postposition system. Hajdú, Labádi, Labanauskas, Perfil'eva, Sebestyén, and Shcherbakova, among others, have been active in publishing articles, as seen in the the bibliography by Hajdú (1988). Salminen (1998a) is a reverse dictionary with a key to inflectional paradigms, and Salminen (1997) a monograph on inflection.

Syntax

Word order

The word order is predicate-final. A regular transitive sentence appears as (Time adverbial) Subject noun phrase (Place adverbial) Object noun phrase (Manner adverbial) Predicate verb. Any focused constituent may be placed in preverbal position, but otherwise the order is quite rigid; only heavy emphasis may result in a postverbal constituent Notably, question words do not cause changes in the word order. In negative sentences, the two final word-forms are, in this order, the negative auxiliary verb and the main verb in the connegative. Within noun phrases, the attribute always precedes its head.

Constituent structure and agreement

The head of a subject noun phrase is in the nominative. Subject personal pronouns are used only for emphasis, while the person is expressed by conjugation. Subjectless constructions include sentences with the second person imperative and impersonal sentences with the verbs *tara-* and *siər-* in the sense 'must'.

The subject of an embedded clause, the possessor attribute, and the head of a postposition are in the genitive. Personal pronouns in these functions are, however, in the nominative, and used only for emphasis, while person is expressed by possessive declension. The genitive of personal pronouns is used only in those rare instances which do not allow possessive declension of the main word.

The head of an object noun phrase is in the accusative, except if the verb is in the second person imperative, when the object is in the nominative. Personal pronouns are, however, invariably in the accusative.

Within a noun phrase, an attribute does not usually agree with its head in case, but agreement in number is possible, the choice depending on the particular focus relations. In a special form of agreement, an attribute may duplicate the possessive suffix of its head (which occasionally leads to agreement in case as well).

A predicate verb or noun agrees in person and number with the subject. A predicate verb also agrees in number with the object if it is in the objective conjugation. The choice of conjugation depends on the focus of the object. When introduced as new information, the object usually stands immediately before the verb, which is then in the subjective conjugation. When non-focused, the object may appear apart from the verb or be completely omitted, the verb being obligatorily in the objective conjugation.

A predicate noun is followed by a form of the copula *ŋæ-* 'to be' if and only if the sentence is negative, non-indicative, future or habitual.

There are no conjunctions, but subordination is expressed by subordinate non-finite forms or infinitives and participles in local case forms and postpositional phrases. Simple parataxis often serves for co-ordination, but various connective adverbs are also available. Yes–no questions are expressed (i) by the interrogative mood, when referring to past time, or (ii) by a special intonation, when referring to the present or future time. A few clitic particles are also used for special emphasis.

Further reading. The only major publication on syntax is Tereshchenko (1973).

Abbreviations

abl. = ablative (case)
abs. = absolute (declension)
acc. = accusative (case)
aor. = aorist (tense)
appr.imperf = imperfective approximative (mood)
com. = comitative (derivative)
conj. = conjunctive (mood)
conneg. = connegative (non-finite form)
dat. = dative (case)
du = dual (number)
dur. = durative (derivative)
ess. = essive (derivative)
frequ. = frequentative (derivative)
fut. = future (derivative)
gen. = genitive (case)
ger.mod = modal gerund (non-finite form)
imp. = imperative (mood)
ind. = indicative (mood)
inf.imperf = imperfective infinitive (non-finite form)
inf.perf = perfective infinitive (non-finite form)
int. = interrogative (mood)
iter. = iterative (derivative)
lim. = limitative (derivative)
loc. = locative (case)
mod. = moderative (derivative)
narr. = narrative (mood)
nec. = necessitative (mood)
nom. = nominative (case)
obj. = objective (conjugation)
obl. = obligative (mood)
odor. = odorative (derivative)
ord. = ordinal (derivative)
partic.fut = futuritive participle (non-finite form)
partic.imperf = imperfective participle (non-finite form)
pej. = pejorative (derivative)
perf = perfective (a mood or non-finite form)
pl = plural (number)
poss. = possessive (declension or derivative)
predic. = predicative forms (nominal conjugation)
pret. = preterite (tense)
pros. = prosecutive (case)
refl. = reflexive (conjugation or conjugational class)
sg = singular (number)
sim. = simulative (derivative)
subj. = subjective (conjugation)
subord. = subordinative (non-finite form)
sup. = superprobabilitative (mood)
tr. = transitive (conjugational class or derivative)

Text

Excerpted from Susoi 1990, p. 20, transcribed and translated by Tapani Salminen

Nyew°xi° nyenecyəyeq syoq.
ancient.ABS.NOM.SG person.ABS.GEN.PL song.ABS.NOM.PL

Xurkaryi ləx°naku, yarəbc°,
what.kind.LIM.ABS.NOM.SG tale.ABS.ACC.PL yarabts.ABS.ACC.PL

syud°bəbc° ŋədyibyelyewantoh xaw°na
syudbabts.ABS.ACC.PL present.INF.IMPERF.POSS.GEN.SG3PL besides.ABS

nyenecyə°q yilyewantoh yampən°h
person.ABS.NOM.PL live.INF.IMPERF.POSS.GEN.SG3PL long.ABS.DAT.SG

xərtoh yíx°ntoh syoyo syertabəwi°q.
self.3PL mind.POSS.DAT.SG3PL song.ABS.ACC.PL make.DUR.NARR.SUBJ.3PL

Yah syar°h nyinya ŋoyak°q nyenecyəlyiq
earth.ABS.GEN.SG surface.ABS.GEN.SG on.ABS.LOC rare.ABS.NOM.PL
person.LIM.ABS.NOM.PL

xərtoh syertawi° wadyidoh syoŋe° mecy°
self.3PL make.PARTIC.PERF.ABS.NOM.SG word.POSS.ACC.PL3PL song.ESS
perform.GER.MOD

nyídoh pyirəs°q – tyiki°q syom mecy°
not.IND.OBJ.PL3PL can.CONNEG – it.ABS.NOM.PL song.ABS.ACC.SG
perform.GER.MOD

nyinya pyir°taq xíbyaq.
not.PARTIC.IMPERF.ABS.NOM.SG can.PARTIC.IMPERF.ABS.NOM.PL
who.ABS.NOM.PL

Tərcya nyenecy°h ŋulyiq tyanyo.
such.ABS.NOM.SG person.ABS.NOM.SG very little.ABS.NOM.SG

Free translation:

Traditional folk songs. Besides presenting various kinds of tales (*ləx°nako*) and epic songs (*yarəbc°* and *syud°bəbc°*), the people, in the course of their lives, have made songs in their own minds. On the surface of the earth, only few people cannot perform words made by themselves as a song – they are the ones unable to perform a song. Such people are very few.

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