

**Timofey Arkhangel'skiy.** Application of dialectometric method to the classification of Udmurt dialects

This paper presents a dialectometric analysis of Udmurt dialects. The cornerstone of the dialectometric method is a matrix of distances between settlements representing different dialects and subdialects, which are proportional to the number of linguistic differences between these settlements. This matrix is used to build a hierarchical clusterization and visualization of Udmurt varieties, where clusters of similar settlements and prominent isogloss bundles can be clearly seen. A comprehensive set of questionnaire data coming from a large number of settlements is a prerequisite for such a study. I use dialectal maps from the first three volumes of the Udmurt Dialectological atlas (the first volume appeared in 2009) as the source of such data. The results are compared to the most widely used existing classification of Udmurt dialects. While there are few high-order differences between the two (i.e. at supradialect and, sometimes, dialect levels), more inconsistencies appear when looking at them in detail. The visualization also clearly highlights some homogeneous areas of local continua (primarily in the Northern supradialect), which makes it difficult to arrive at a total and clear-cut classification. This can be explained in part by the fact that the Dialectological atlas contains almost exclusively lexical data, while the traditional classifications are mostly based on phonetic and morphological criteria. In any case, the observed divergence demonstrates the impossibility of creating a one-size-fits-all dialect classification suitable for any kind of linguistic research.

*Keywords:* Udmurt language, dialectology, dialectometry

**Maria P. Bezenova.** Phonetic features of the “Life of St. Theodore” (1913) written in the Udmurt language

The article describes the vowel and consonant features of the translation of the “Life of St. Theodore” (1913) into the Elabuga dialect of the Udmurt language. The phonetic isoglosses of the written record could not be considered without taking into account its script and spelling system; therefore, the article also pays special attention to the script and orthography of the source material.

The phonetic features are described by comparing the vowel and consonant system of the “Life of St. Theodore” with the vowel and consonant system of the modern Udmurt literary language, adding, whenever available, correspondences from the dialect dictionary by Y. Wichmann [Wichmann 1987], the materials for which were collected at the end of the 19<sup>th</sup> century. Furthermore, corresponding modern forms from the audio dictionaries based on 2013 field data are also indicated. Such a comparison makes it possible to try to determine the archaic or innovative nature of each feature identified at the phonetic level.

The analysis shows that, in general, “Life of St. Theodore” (1913), in comparison with earlier translated records, has a clear script and spelling system along with certain spelling rules for various parts of speech. As for the phonetic features, almost all of them remain to various extents in the modern Central-Southern Udmurt dialect. However, based on modern dialect data, it turns out to be difficult to determine more precisely which of the Central-Southern dialects was used in this record as, unfortunately, the subdialects of this area are described rather poorly today.

*Keywords:* the Udmurt language, written record, graphic and orthographic features, phonetic features

**Ilya B. Itkin, Svetlana I. Pereverzeva.** Some clarifications to the interpretation of the data of the Obdorsk Nenets dictionary (reply to the article of P. I. Li “The graphic analysis of the first syllable vowel system in Nenets dictionaries from A. M. Sjögren’s archive” // *Ural-Altaic Studies*. 2021, 1 (40). P. 47—60)

The article contains some clarifications to the interpretation of the data of the Obdorsk Nenets Dictionary (Ob) proposed in [Li 2021]. In the first part of the article, we show that the acute and grave marks were used in Ob to denote stress, and we provide a description of the accent system of the monument. Comparison of the accentuation of two-syllable names in Ob with the data of the Yamal dialect suggests that the placement of accent marks in the dictionary reflects a certain phonetic reality.

The second part is devoted to the use of the prosthetic consonant graphemes (*n*, *nj*, *ng*, *m*, *g*) in Ob. The graphemes *n* and *nj* reflect the palatal \**n̥*-, which appears before the original front vowels; the graphemes *ng*, as well as *t* (only in *mum* ‘grass’) and *g* (only in *gyn* ‘bow’) reflect the velar \**ŋ*- and appear before the back vowels. This rule was formulated in the article [Hajdú 1954]. In Ob, several words with an initial back vowel do not have a prosthesis, cf. *amsà* ‘meat’ vs. *ngob* ‘one’, *udà* ‘hand’ vs. *ngaiwa* ‘head’. We suggest that the prosthetic consonant appears if the first syllable is stressed. We also consider the Ustyinsky dialect,

which is another rare example of the Nenets dialect with the  $\eta$ - ~  $\emptyset$  variation. The plausible hypothesis is that in this dialect,  $\eta$ - is presented in non-derivative verbs, and  $\emptyset$  is presented in other cases, cf.  $\eta qm_i Dz' \partial$  'to eat' vs.  $qm_i Dz' p$  'meat'. The existence of “ $\eta$ -less” dialects mentioned in [Hajdú 1954] and of such “hybrid” idioms as the Ob and Ustyinsky dialect presumably cannot be explained by the secondary loss of \* $\eta$ -; thus, in Nenets words with initial  $\eta$ - both for Proto-Nenets and even for Proto-Tundra Nenets, the vocal, but not the nasal, anlaut should be reconstructed.

*Keywords:* Nenets language, Obdorsk Nenets dictionary, Yamal dialect, stress, nasal prosthetic consonant, vocal anlaut, A. M. Sjögren

**Sergei V. Kovylin.** “Materials for acquaintance with the Ostyak dialect of the Narym krai” for 1887 of Makary (Nevsky): nominal and pronominal morphology

This paper is devoted to the description and analysis of the nominal and pronominal morphology of one of the first Selkup written monuments in the Narym dialect. The monument is analyzed for the first time and contains important information on the morphology of the end of 19<sup>th</sup> c., recorded by Makary (Nevsky). The paper provides information about the first trip of St. Makary to the Selkups and the content of the monument he wrote down.

The categories of number, case and possession as well as the formation of nouns are discussed in the noun morphology. The same categories are also discussed in the pronominal morphology while analyzing personal, interrogative, reflexive-personal and demonstrative pronouns as well as adverbs, adjectives and numerals based on pronominal stems. Materials from northern, central and southern dialects are also used, as well as the diachronic content on the Narym dialect to compare the data of the monument and highlight special features.

*Keywords:* Selkup language, noun, pronoun, morphology

**Daria D. Mordashova.** Towards the typology of imperative: semantics of imperative modifiers in Hill Mari

The paper considers three modifiers that can be combined with the imperative in Hill Mari (Mari < Uralic): two imperative-specific modifiers (a clitic =*aj* and a suffix -*âma*) and a transcategorical particle =*jä*. These modifiers interact with the semantics of imperative in different ways, and the paper aims to determine their semantic and pragmatic contribution. The lack of a clear mechanism for the cross-linguistic study of imperative modifiers (as well as markers of (non-)categoricity in general) made it necessary to suggest a set of factors that may be relevant when choosing a particular modifier. Based on typological works devoted to the semantics of the imperative, the following factors have been taken into account: type of the directive speech act, social status of the interlocutors, compatibility with specific directive contexts (jussive, prohibitive). Taking into account the selected parameters, semantic and morphosyntactic properties of the Hill Mari imperative modifiers are analyzed, and a possible semantic invariant for each modifier is proposed. As a result, one gets a clear-cut division of the modifiers into two classes: the first class is represented by modifiers that are sensitive to the type of speech act and demonstrate various semantic effects in the context of different speech act types. Within this group, =*aj* and =*jä* are contrasted to each other, focusing on different participants of the speech act (the addressee and the speaker, respectively). The marker -*âma* belongs to the second class and is opposed to other markers, since its use does not yield significant semantic effects in various speech acts, but it has some certain morphosyntactic constraints. Semantically, this marker is considered as a neutral means of attenuating the directive speech act.

*Keywords:* imperative modifiers, Hill Mari, semantics, pragmatics

**Munkhtsetseg Namsrai, Sainbilegt Dashdorj.** Discourse marker use regarding age factor: the case of Mongolian spoken discourse

The present paper focuses on the age differences in the use of discourse markers (DMs), especially the most common ones, in Mongolian spontaneous speech. Even though DMs are typical of any spoken utterance, it is sometimes argued that young people make excessive use of DMs due to their lexical poverty. Thus, this paper evaluates this claim by analyzing the use of DMs by several age groups both quantitatively and qualitatively in terms of frequency, distribution, and choice.

According to the study, all possible DMs were used more frequently by the younger group compared to the other two groups. The percentage of the DMs used by the older speakers was 13.7% (13081) out of

the total of 95485 tokens, while the frequency of the DMs used by the middle-aged participants was 15.5% (14214) out of the total of 91706 tokens, and the frequency of the DMs used by the younger participants was 18.6% (16288) out of the total of 87570 tokens. The results of the study confirm that the younger speakers use more fillers, false starts, repetitions, and hesitation markers than the older speakers. Additionally, the percentage of the DMs in their whole lexicon might also support the hypothesis. Moreover, it has been revealed that the younger speakers use new variants of DMs more often. Thus, it can be deduced that young people might influence language change.

One interesting finding is that the most common DMs are used differently by each age group in terms of their frequency, variation, and function. *Tegeed* is the most frequent DM amongst the younger speakers, whereas *odoo* is the most frequent DM amongst the older speakers, and *bol* is the most frequent DM amongst the middle-aged speakers.

*Keywords:* Mongolian discourse markers, age, gender, frequency, filler, spontaneous speech, corpus linguistics

**Julia V. Normanskaja.** Was there any phonetic reality behind the position of stress in G.F. Müller's Obdorsk wordlist?

I.B. Itkin and S.I. Pereverzeva note in their article "Some clarifications to the interpretation of the data of the Obdorsk Nenets dictionary (reply to the article of P. I. Li "The graphic analysis of the first syllable vowel system in Nenets dictionaries from A. M. Sjögren's archive" // *Ural-Altai Studies*. 2021, 1 (40). P. 47—60) that the position of stress in some words in the Obdorsk dialect found in the materials from A.M. Sjögren's archive, which were probably copied from the lists collected by G. F. Müller, does not coincide with the data on the Yamal dialect. Hence, the following question is bound to arise: is there any prosodic reality behind the position of stress in the Obdorsk wordlist from A.M. Sjögren's archive? In this connection, the data from the dictionary of the Gydan dialect of the Tundra dialect of the Nenets language (<http://lingvodoc.ispras.ru/dictionary/704/16/perspective/704/17/view>), created by M. K. Amelina, seemed quite promising. The search for the etymological cognates of the words from the Obdorsk wordlist under consideration yielded 28 lexemes. Based on auditory perception, in 26 of them, the position of stress coincides with the Obdorsk words. These lexemes were analyzed using Praat, an experimental software package for phonetic analysis. The findings show that Obdorsk words which are stressed on the first syllable have a significantly higher intensity of the first syllable vowel in modern Gydan (5–18 dB higher than that of the second syllable vowel) whereas Obdorsk words with stress on the second syllable have a longer second syllable vowel in modern Gydan (by 0.04–0.11 seconds longer than the first syllable vowel) with differences in intensity between the first and the second syllables being no more than 3 dB, that is, imperceptible to the human ear. These results suggest that a certain phonetic reality corresponded to the position of stress in the Obdorsk wordlist, and it was not assigned by G.F. Müller accidentally.

*Keywords:* experimental phonetics, dialects of Nenets, field data, archive data

**Irina P. Novak.** Application of the clustering technique to dialect division of the Karelian language (case study of the distribution of front fricative consonants)

The need has arisen to revise the dialect division of the Karelian language using modern methods for processing big data. This article examines how this task can be handled using the cluster analysis algorithm through the case study of one of the most vivid phonetic markers of Karelian dialectal speech — the distribution of front fricative consonants, which depends on a variety of factors working individually or together in different proportions: position of the consonant in the word, front or back vocalism of the word, presence of the vowel *i* in the immediate vicinity, etc. The source material for the study was digitalized and coded dialectal data from "Programs for collecting material for the dialectal atlas of the Karelian language" (approx. 37 500 units) filled out in 1937—1950 in 146 settlements in Karelia. Mapping of the clustering output visualizes the formation history of Karelian supradialects and dialects, and enables a more precise drawing of certain isoglosses of the phonetic phenomenon in question. The results of the cluster analysis were verified by comparing against the data derived by processing the same dialectal material with the Cognate analysis tool of the LingvoDoc linguistic platform, and against the conclusions based on traditional linguistic geography methods as published by D. Bubrikh and P. Virtaranta. We can conclude from the study that the suggested technique can be applied as the basis for dealing with dialect division of the Karelian language.

*Keywords:* Karelian language, dialectology, linguistic geography, dialect division, cluster analysis, cognate analysis

**Natalia A. Solomkina.** Main verb transitivity in Japanese benefactive constructions in the light of corpus data

Benefactive constructions in the languages of the world allow main verbs with different transitivity levels. In this article we are taking in account Japanese benefactives (analytic constructions with so-called directionality verbs) in typological context, and we examine restrictions that these constructions impose on transitivity level of the main verb. We survey the data from the Balanced Corpus of Contemporary Written Japanese (BCCWJ) and the Corpus of Spontaneous Japanese (CSJ). Using the quantitative analysis, we prove that in our datasets there is a significant statistical difference between the distribution of valency classes of the main verbs in benefactive constructions and the distribution of valency classes across randomly selected verb forms. To put it differently, the choice of a main verb depends on the restrictions imposed on the transitivity level by the benefactive construction. We also demonstrate that benefactive constructions lean toward monotransitive main verbs but are not confined to them. Our data confirm the preceding assumption that intransitive verbs with 'give' auxiliaries are acceptable if the receiver is not overtly expressed. But for 'receive' auxiliaries we do not find any limitations linking the transitivity of the main verb with the overt encoding of a benefactor or a beneficiary.

*Keywords:* Japanese, transitivity, verb valency, corpus linguistics, verb classes, Japanese grammar, benefactive constructions, valency classes, linguistic typology