Polina Kasyanova

NONVERBAL PREDICATION IN CHUKCHI

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In this paper, I describe and analyze several types of nonverbal predication in Chukchi. Following [Matushansky 2008, 2010], I assume that Case is a realization of bundle formed by percolation of features assigned by different heads above the terminal node and explain the equative/absolutive variation in case-marking pattern observed in Chukchi nominal predication by feature percolation. The analysis of nominal predicational constructions is then extended to account for peculiar properties of adjectival predication.

Key words: nonverbal predication, nominal predication, feature percolation, Chukchi, Chukotko-Kamchatkan

JEL Classification: Z

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[1] National Research University Higher School of Economics, School of Linguistics, pakasyanova@gmail.com

1. Introduction

Predication, its semantics and the means of its manifestation in syntax, is one of the main topics of interest for linguists committed to all kinds of approaches to language. The proper understanding of predication is a key to estimating the borders of human language faculty, as predication is one of the primary categories constituting an utterance. The diversity of predication types within any language and cross-linguistically makes it rather compelling to determine a close set or even a single configuration in which the predication relation is established. Any unified theory of predication should take into account the whole range of data from different languages, therefore a profound typological and language-specific investigation is needed to calibrate and verify the existing theories by applying them to cases found in particular languages.

The present paper is devoted to nonverbal predication in Chukchi, one of the Chukotko-Kamchatkan languages, spoken in the far northeast of the Russian Federation. The study is mainly based on the data collected during fieldwork in the village Amguema (Iultinskiy District of Chukotka Autonomous Okrug). Chukchi language is predominantly agglutinating; it is characterized by the high degree of synthesis, productive incorporation and extensive use of lexical affixation. It exhibits consistent morphological ergativity in case-marking and a mixed system in agreement; it also shows some features of syntactic ergativity, e.g. a ban on Ā extraction of ergatives from relative clauses [Comrie 1979; Polinskaja, Nedjalkov 1987; Polinsky 1994, 2016]. The word order is relatively free with a tendency to SOV. More information on Chukchi grammar can be found in [Skorik 1961; Dunn 1999; Muravyova et al. 2001], I refer to these descriptions and cite the relevant examples from them below[3].

The main aim of the study is to describe and analyze different types of nonverbal predication found in Chukchi language and provide a rough structure for some of the types. The paper is organized in five sections. The second section presents a brief overview of the approach I will use and a set of preliminary assumptions. The discussion of various nonverbal predicates in constructions with and without copula can be found in the third section. The fourth section is devoted to the analysis of adjectival predicates and their status with respect to stative verbal predicates. The last section presents an overall conclusion and several remarks on questions open for future research.

2. Previous Work on Nonverbal Predication

L. Stassen [1997] distinguishes four types of intransitive predication: event, or action/state, predication, property-concept predication, class-membership predication, and locational

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[3]The translations are sometimes slightly changed leaving the general meaning and structure intact. The glosses are mine.

predication. Each of the types typically manifests itself in predicating an instantiation of a particular part of speech: verb, adjective, noun, and prepositional phrase or adverbial element. Languages cut the conceptual space of predication in different ways, not necessarily contrasting all four types in grammar.

In the very influential typology of [Higgins 1979], copular sentences are divided into four types illustrated with English examples in (1). The identificational type is usually reduced to identity statements and/or specificational sentences, e.g. [Mikkelsen 2005] suggests that identificational class is not semantically homogeneous and should be split into two subclasses, which are then subsumed under specificational and identity types.

(1)   a. John is a butcher. (predicational)

   b. The winner is John. (specificational)

   c. That bold man over there is my best friend. (identity)

   d. That is John. (identificational)

The vast majority of studies are devoted to the structure of pure predicational sentences (see [Roy 2013] for a recent examination of such sentences), almost completely omitting the discussion of identity statements, also referred to as equatives. While predicational sentences involve a non-referential noun phrase, functioning as a predicate, in equatives both the subject and the predicate complement are referential expressions, posing some problems for their analysis in terms of unique syntactic structure of predication and semantic interpretation [Partee 1999].

Following [Bowers 1993, 2001; Svenonious 1994; Adger & Ramchand 2003] and many others, I assume that predication relation is established under the specific structural configuration. In case of nonverbal predication, the functional head, which I refer to as $Pred^0$, takes a property as its complement and returns an unsaturated one-place predicate, projecting the subject in the specifier position (2).

(2)

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        PredP
         /\
       DP   Pred'
            /\
        Pred⁰  YP
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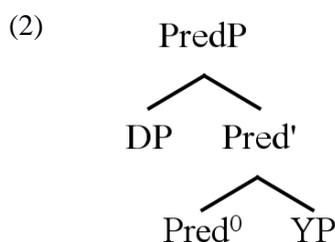
This view has two important theoretical implications. Firstly, equative sentences are analyzed in the same manner as predicational sentences, which presupposes the existence of intrinsic asymmetry in identity statements. Therefore, I reject the possibility of "bare" symmetrical small-clause structure proposed for Russian by [Pereltsvaig 2001; 2007] on the grounds of uniformity of predication (other critical remarks can be found in [den Dikken 2006]).

Secondly, I assume that the copula itself does not assign any θ-roles within the SC as it is generated higher in the structure. This approach raises an issue of copula placement. If copula is considered a lexical verb that takes a small clause as its complement, it should be base-generated in V^0. The grammaticality of English sentences, in which copula and modal auxiliary co-occur, e.g. *John should be an amazing butcher*, is sometimes viewed as an argument for this option [Bowers 2001]. Otherwise, one could suggest that copula is a spell-out of a feature bundle in the domain of functional projections above the VP, e.g. T^0. O. Matushansky [2010] proposed that the copula 'be' is cross-linguistically ambiguous between a lexical verb and a dummy that bears tense morphology and put forward a new Case Theory, which I adopt in this study. I believe that a head assigns Case features to its complement and more than one Case feature can be assigned to one term through Case percolation unless it is blocked (e.g. by a non-verbal head). The exact phonological realization of the combination of Case features is determined by language-specific vocabulary insertion rules. In section 3, I will show that copulas in Chukchi are indeed lexical verbs and, thus, in this respect Chukchi patterns with Russian and Arabic [Matushansky 2008]. I will also provide an explanation for case assignment in Chukchi copular constructions and small clauses in general.

3. Nonverbal Predication in Chukchi

In this section, I describe Chukchi nonverbal predication with special reference to its subclass, nominal predication, in which the predicate is a noun phrase, and propose an analysis of copular and copula-less constructions. Adjectival predication is discussed in section 4.

3.1. Nonverbal Predication: Data

According to [Dunn 1999: 308], there are three copulas, which can also function as auxiliaries, in Chukchi: *-twa-* 'be in a place, exist', *-it-* 'be something' and *-nʔeł-* 'become'. I do not consider *-nʔeł-* a copula and will discuss only the other two. The copula *-twa-* is used in existential (3a)[4] and locative (3b) predication, while *-it-* is used in nominal predication (4) and in identity statements (5), in which the predicative NP[5] is marked with equative case. Although there is no difference in morphological marking of predicational and equative sentences, only the latter allow inversion around the copula.

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[4]Although I could not elicit such sentences, [Muravyova et al. 2001] suggest that the copula *-it-* can be used in existential predication (i).

(i) enmen   qoł   ɣ-it-łin   tełenjep   əm   amə
     then   one   PF-be-PF.3SG   long.ago   PTCL   PTCL
     'There was one (person), in old times.' [Muravyova et al. 2001: 373]

[5] In this paper, I omit the discussion of the status of DPs in Chukchi, as it is not relevant for the analysis. Following [Partee 1986], I assume that if DP is used as a predicate, it is shifted to a characterizing property.

(3) a. keɬʔe-t   wa-rkə-t   / *itə-rkə-t

   spirit-ABS.PL be-IPFV-PL /   be-IPFV-PL

   'Spirits exist.' [existential predication]

   b. ətɬon   jara-k   (wa-rkən) / *itə-rkən

   he.ABS   house-LOC be-IPFV   /   be-IPFV

   (Where is he?) 'He is at home.' [locative predication]

(4) a. Ivan   sawsəwa-no   n-it-qin

   Ivan   reindeer.herder-EQU   ST-be-ST.3SG

   'Ivan is a reindeer herder.' [predicational]

   b. *sawsəw   Ivanə-no   n-it-qin

    reindeer.herder.ABS   Ivan-EQU   ST-be-ST.3SG

   'Reindeer herder is Ivan.'

(5) a. ɣəm-nin enara.ɬʔə-n   ɣənə-k-tumɣ-u   n-it-qin

   I-POSS   neighbor-ABS   you.SG-POSS.INC-friend-EQU ST-be-ST.3SG

   'My neighbor is your friend.' [identity statement]

   b. ɣənin   tumɣətum   ɣəmə-k-enara.ɬʔ-o   n-it-qin

   you.SG-POSS friend.ABS   I-POSS.INC-neighbor-EQU   ST-be-ST.3SG

   'Your friend is my neighbor.' [identity statement]

In (3b) it was shown that in the context of locative predication the copula can be omitted. Copula can also be absent in nominal predication (6). Predicative NP agrees in person only with the first and second person subjects and in number with all subjects. The 1st and 2nd person agreement suffixes coincide with the suffixes of stative verbal predicates and adjectival predicates, discussed in section 4. In copula-less identity statements the inversion remains possible, none of the noun phrases is marked with equative (7).

(6) a. ɣəm sawsəwa-jɣəm

   I.ABS reindeer.herder-NP.1SG

   'I am a reindeer herder.'

   b. ətɬon   sawsəw

   he.ABS   reindeer.herder.ABS

   'He is a reindeer herder.'

   c. ətri   sawsəwa-t

   they.ABS   reindeer.herder-ABS.PL

   'They are reindeer herders.'

(7) a. ɣəm-nin   enara.ɬʔə-n   ɣən-in   tumɣətum
       I-POSS   neighbor-ABS   you.SG-POSS   friend.ABS
       'My neighbor is your friend.'

   b. ɣən-in   tumɣətum   ɣəmn-in   enara.ɬʔə-n
       you.SG-POSS   friend.ABS   I-POSS   neighbor-ABS
       'Your friend is my neighbor.'

The ability to agree with the subject is not restricted to noun phrases in the predicative position. Numerals (8a), demonstrative and interrogative pronouns (8b), and at least some quantifiers can also receive agreement markers. Personal pronouns (9a), postpositions (9b), adverbs, and interjections are incompatible with agreement suffixes.

(8) a. ŋəra-more
       four-NP.1PL
       'We are four.'

   b. meŋine-jɣət
       who-NP.2SG
       'Who are you?'

(9) a. *ɣəm   wane   ɣət-iɣəm
        I.ABS   NEG.NFUT   you.SG-NP.1SG
        'I am not (like) you!'

   b. *ɣəm   (ɣənə-k)   ɣərɣoɬ-iɣəm
        I.ABS   you.SG-LOC   behind-NP.1SG
        'I am behind (you).'

A crucial feature of nonverbal predication is that it is interpreted as referring to present and sometimes, when used with temporal adverbs like *sit* 'before', to past. The reference to future is impossible[6]. To express various TAM characteristics, a copula must be inserted, rendering equative case on the noun phrase. Another option is to derive a verb from a noun by means of verbalizing suffix *-et-*, which in (10) is realized as *-an-*, according to the rules of vowel harmony. The analysis of this possibility is beyond the scope of the paper.

(10)   tə-ra-ɬɣi-sawsəw-an-ŋə-rkən
       1SG.S/A-DES-INTS-reindeer.herder-VB-DES-IPFV
       'I want to be a reindeer herder very much!'

In the next section, I put forward an analysis of nonverbal predication as involving a small

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[6]The same set of interpretations is available for the stative form of verbs [Volkov et al. 2012: 439] and adjectives in predicative use, supporting the parallel between nominal, adjectival, and stative verbal predication.

clause, which unifies it with other types of contexts where small clauses occur.

3.2. Nonverbal Predication: Analysis

The identical morphological marking of predicational and identificational sentences in Chukchi suggests that they may have the same syntactic structure. Assuming that a functional head $Pred^0$ mediates all types of nonverbal predication, turning its saturated complement into an unsaturated predicate, I have to explain why the predicative NP can receive either equative or absolutive case marking. It is clear that equative case is used with an overt copula, while in copula-less constructions, both the subject and the predicative NP are marked with absolutive. Only in the latter case the predicate agrees with the subject and the set of available tense and aspectual interpretations is restricted.

If interpretable features of a given head are copied onto its complement as a bundle of uninterpretable features realized on some of the complement's terminal nodes, and the assignment percolates down until there is a barrier that stops percolation, the same constituent can acquire different sets of features in different syntactic environments [Matushansky 2008, 2010]. This approach allows me to preserve single analysis for all small clauses by claiming the source of difference in the structure above them.

It is widely accepted that absolutive is an unmarked and environmentally sensitive case, usually assigned by T^0 (see the review of theories dealing with ergativity in [Deal 2015]). Thus, we could say that the bundle of features associated with absolutive is assigned to its complement, a vP, and the complement of v^0 will always get a more complex set of features than just 'absolutive' ones. I suggest that the head $Pred^0$ does not assign Case, but it is the source of the predicative feature [pred]. If there is no overt copula, the small clause is merged as a direct complement of zero T^0, evoking a restricted 'unmarked' set of tense interpretations. The structure of (6b), repeated here as (11a), is represented in (11b).

(11) a. ətɬon   sawsəw

         he.ABS   reindeer.herder.ABS

         'He is a reindeer herder.'

    b.
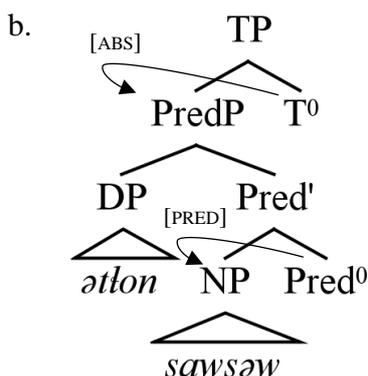
The small clause subject receives the bundle of features from T^0, which I represent as [ABS]. The predicative NP gets the features from $Pred^0$ and from T^0, as no barrier intervenes on the path of percolation. In the end, both, the subject and the predicate, are marked with absolutive case. The same holds for (12), in which, however, the predicate moves to T^0 to agree with the subject.

(12) a. ɣəm   sawsəwa-jɣəm

　　　 I.ABS reindeer.herder-NP.1SG

　　　 'I am a reindeer herder.'

b.
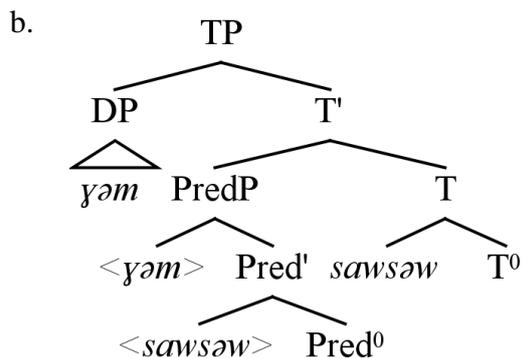
In (12) the movement takes place to check uninterpretable phi-feature [u1pers] on the predicate. I assume that no movement is involved in (13) because Chukchi nominal predicates lack [u3pers] specification. At the same time, all nominal predicates agree with their subjects in number, which suggests that there is movement in case of third person plural subject, e.g. in (6c).

The insertion of the copula changes the structure and the extra V^0 node is introduced with the eventive v^0 associated with it. I present the structure of (4a), repeated here as (13a), in (13b), omitting the T^0 node.

(13) a. Ivan   sawsəwa-no   n-it-qin

　　　 Ivan   reindeer.herder-EQU   ST-be-ST.3SG

　　　 'Ivan is a reindeer herder.'

b.
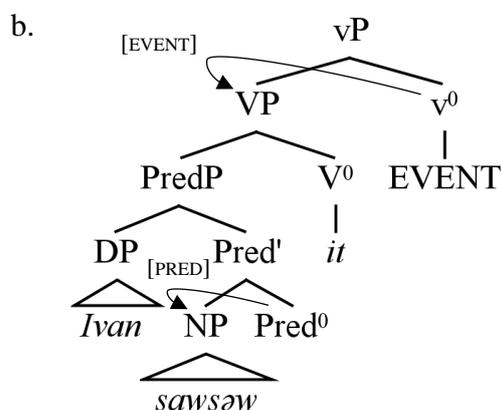
Now the featural makeup of the subject and the predicate became more complex. They both

receive features [ABS] and [EVENT], and the predicate also gets the feature [PRED] from the functional head of the small clause. It is the bundle [EVENT, PRED] that triggers equative case marking on the predicative NP. The relevant fragment of vocabulary insertion rules is given below.

(14) Vocabulary Insertion Rules

    a. [EVENT, PRED] → EQU

    b. [ABS] → ABS

In (13) I placed the copula *-it-* in V^0, suggesting that it is a lexical verb. Indeed, both copulas are fully inflected in all tenses and consistently follow the general inflectional pattern. At least one of them can be used in the context of existential predication acting as intransitive predicate. Moreover, there are other Chukchi verbs that presumably take small clauses as their complements.

The sentences in (15) show that *-ɬəŋ-/-ɬɣ-* 'consider' can take a CP as its complement, which triggers default third person singular agreement on the predicate.[7] The use of equative case is forbidden unless there is a copula.

(15) a. ɣəm-nan tə-ɬɣə-rkən   turi   ɣəmə-k-tumɣə-turi

        I-ERG   1SG.S/A-consider-IPFV you.PL I-POSS.INC-friend-NP.2PL

    b.*ɣəm-nan tə-ɬɣə-rkən   turi   ɣəmə-k-tumɣ-u

        I-ERG   1SG.S/A-consider-IPFV you.PL I-POSS.INC-friend-EQU

    c. ɣəm-nan tə-ɬɣə-rkən   turi   ɣəmə-k-tumɣ-u

        I-ERG   1SG.S/A-consider-IPFV you.PL I-POSS.INC-friend-EQU

        itə-rkəni-tək

        be-IPFV-2PL.S/O

'I think that you are my friends.'

Consider, however, examples in (16), in which the main predicate has second person plural agreement with the object. A CP complement is no longer available (16a), but a small clause with predicative NP bearing equative case becomes possible (16b). The insertion of the copula is prohibited (16c).

(16) a.*ɣəm-nan tə-ɬɣə-rkəni-tək   turi   ɣəmək-tumɣə-turi

        I-ERG   1SG.S/A-consider-IPFV-2PL.S/O you.PL I-POSS.INC-friend-NP.2PL

    b. ɣəm-nan tə-ɬɣə-rkəni-tək   turi   ɣəmək-tumɣ-u

        I-ERG   1SG.S/A-consider-IPFV-2PL.S/O you.PL I-POSS.INC-friend-EQU

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[7] Another option would be to conjecture that no subordination is involved in this case. Hence, the sentences could be translated as *I think the following: you are my friends*. I leave this issue open for future research.

c.*ɣəm-nan tə-ɬɣə-rkəni-tək   turi   ɣəmək-tumɣ-u

    I-ERG   1SG.S/A-consider-IPFV-2PL.S/O you.PL   I-POSS.INC-friend-EQU

    itə-rkəni-tək

    be-IPFV-2PL.S/O

'I consider you my friends.'

The difference in the structure of clausal complements also manifests itself in the syntactic and pragmatic restrictions on binding. The sentence in (17a) is judged ungrammatical because the reflexive possessive intensifier *sinitkin* must be bound by the subject of the subordinate or conjoined clause, i.e. *turi* 'you.PL', rendering infelicitous interpretation *You are yourselves' friends*. However, the reflexive pronoun lacks plural marking and the coreference relationship is not properly established, which leads to ungrammaticality. On the contrary, the sentence in (17b) is grammatical and completely appropriate because *sinitkin* refers to the subject of the matrix clause.

(17) a.*ɣəm-nan tə-lɣə-rkən   turi   sinit-kin   tumɣə-turi

      I-ERG   1SG.S/A-consider-IPFV   you.PL.ABS   self-REL   friend-NP.2PL

    b. ɣəm-nan tə-lɣə-rkəni-tək   turi   sinit-kin   tumɣ-u

      I-ERG   1SG.S/A-consider-IPFV-2PL.S/O you.PL.ABS   self-REL   friend-EQU

    'I consider you my friends.'

The clear similarity between *-it-* 'be' and *-ɬəŋ-/-ɬɣ-* 'consider' (and also other 'copulas') made M. Dunn come to a conclusion that the latter is a 'transitive copula' [Dunn 1999: 310–311]. Instead, I propose that they both constitute a subclass of lexical verbs that take small-clause complements. The same is true for at least some other verbs, e.g. *-nʔeɬ-* 'become' (18a), *-pera-* 'look like' (18b), *-jaa-* 'use' (18c), *-tejkə* 'make' (18d), and *-nasat-* 'turn' (18e). While the first one was also named a copula in [Dunn 1999], other verbs are definitely not copular in their nature. Although the approximate list of such verbs is yet to establish, it can be seen that all occurrences of equative case can now be analyzed in the same manner.

(18) a. […]   rərka-no   nə-nʔeɬ-iɣət

         walrus-EQU   ST-become-NP.2SG

    'You have become a walrus.' [Muravyova et al. 2001: 21]

    b. ŋotqen   ənne-en   weem-kine-ənn-u   nə-pera-qen

      this   fish-ABS   river-REL-fish-EQU   ST-look.like-ST.3SG

    'This fish looks like a river-fish.' [Muravyova et al. 2001: 317]

    c. ənpənasɣ-a   tanŋə.ŋeɬɣə-n   risit-u   n-ena-jaa-qen

      old.man-ERG   rope-ABS   belt-EQU   ST-INV-use-ST.3SG

    'The old man uses the rope as a belt.' [Muravyova et al. 2001: 318]

d. tor-ɣto-qajo-no   tə-tejkə-ɣʔe-n

   new-born-fawn-EQU   1SG.S/A-make-TH-3SG.O

   'I make him into a fawn newly born.' [Muravyova et al. 2001: 264]

e. ənraq wəkw-u   ɣa-nasat-łena-t,   łuŋə-ɣjew-e

   then   stone-EQU PF-turn-PF.3SG-PL   NEG.PFV-wake.up-NEG.PFV

   ɣ-it-łine-t

   PF-be-PF.3SG-PL

   'Then they turned into stone, and never again awoke.' [Muravyova et al. 2001: 157]

A crucial issue that has to be accounted by the theory is locative predication. If equative case is a realization of the feature bundle [EVENT, PRED], why are the constituents with locative semantics not marked with equative? It seems that such phrases contain a barrier that prevents equative case assignment. Indeed, [Matushansky 2008] suggests that the complement of P^0 is not transparent to external Case-assignment. Accordingly, I postulate a zero postposition that blocks Case percolation. A piece of circumstantial evidence comes from the fact that overt postpositions in Chukchi assign locative case (19). It is less obvious that all cases that mark location need a zero postposition but at least for locative case such analysis seems to be justified.

(19)   wəkwə-k   ewəsa

        stone-LOC under

        'under the stone' [Muravyova 2001: 322]

To sum up, the theory of Case percolation can account for the data presented in section 3.1. Chukchi nonverbal predication involves a small-clause structure, in which $Pred^0$ is responsible for predicational semantics, but not for Case assignment. Equative and absolutive cases are realizations of two distinct feature bundles on the predicate.

4. Adjectival Predication

In this section I concentrate on adjectival predication, which is to some extent similar to stative verbal predication and to constructions with converbs and copulas. I briefly compare adjectives and stative verbal forms and conclude that the border between them is rather blurred. I also provide one more extension of the analysis proposed for other types of nonverbal predication above.

4.1. Adjectival Predication: Data

While nouns and finite verbs in Chukchi form two distinct classes with different morphological and syntactic properties, the class of adjectives cannot be distinguished so easily. In a short summary of Chukchi grammar [Volodin, Skorik 1997: 27] suggested the term

качественная основа 'qualitative stem' to emphasize the vagueness of this category. It is also crucial that they refer to the stem itself and not to the particular adjectival form. Examples in (20–21) demonstrate that the same stem can be used to modify a noun or a verb, it can also be incorporated. I use the terms adjectives and adverbs only for convenience bearing in mind cross-categorial nature of such stems.

(20) a. ŋen-ʔaasek

young-young.man.ABS

b. nə-ŋin-qin   ʔaasek

ST-young-ST.3SG   young.man.ABS

'A young man.'

(21) a. nə-ŋen-pera-qin   qɬawəɬ

ST-young-look.like-ST.3SG   man.ABS

b. nə-ŋen-ʔew   nə-pera-qin   qɬawəɬ

ST-young-ADV   ST-look.like-ST.3SG   man.ABS

'A man that looks young.'

Although the same form of the adjective can function as modifier or predicate, it is easy to discern the two uses. Chukchi is mainly a left-branching language with the predicate often occurring at the end of the clause. If an adjective precedes a noun it is interpreted as modifier, thus, more than one adjective can adjoin to a single noun (22a). If it follows the noun, it is usually analyzed as predicate, and multiple occurrence of adjectives are disapproved (22b). As adjectival interpretation is still available in (22b), some native speakers tend to be less strict in their judgments and accept the sentence, mentioning that in this case (22a) and (22b) do not differ in meaning. In this paper, I discuss only the predicative use of adjectives.

(22) a. ɣəm-nin   nə-mejəŋ-qin   n-ilɣə-qin   ʔəttʔə-n   pəkir-ɣʔ-i

I-POSS   ST-big-ST.3SG   ST-white-ST.3SG   dog-ABS   arrive-TH-2/3SG.S

'My big white dog came.'

b. $^{?}$ɣəm-nin   ʔəttʔə-n   nə-mejəŋ-qin   n-ilɣə-qin

I-POSS   dog-ABS   ST-big-ST.3SG   ST-white-ST.3SG

'My dog is big (and) white.'

Adjectives in Chukchi receive the same marking as stative verbal predicates (23) but several phenomena help to distinguish them from verbs.

(23) a. ajwe   n-ilɣə-qin   qora-ŋə   ɣəntek-wʔ-i

yesterday   ST-white-ST.3SG   reindeer-ABS   run-TH-2/3SG.S

'Yesterday the white reindeer ran away.' [Muravyova et al. 2001: 325]

b. Saša   nə-kupre-ɣite-qin

   Sasha   ST-net-look-ST.3SG

   'Sasha is watching the nets…'

The first piece of evidence comes from the relative position of approximative prefix *mes-/met-* and stative prefix *nə-*. If the stem is adjectival, the approximative marker should be to the left of *nə-* (24a–b). If the stem is verbal, the prefix can be attached before or after *nə-* (24c–d). The position after the stative marker is usually preferred and the form is interpreted with reference to a particular event in present or in past. When *mes-* precedes *nə-*, the form is interpreted habitually or as a property of a person.

(24)   a.   mes-n-ikwə-qin

           APPR-ST-tall-ST.3SG

           'He is rather tall.'

       b.*nə-mes-ikwə-qin

           ST-APPR-tall-ST.3SG

       c.   mes-nə-łejwə-qin

           APPR-ST-walk-ST.3SG

           'He can walk a little.' (e.g. about a baby)

       d.   nə-mes-łejwə-qin

           ST-APPR-walk-ST.3SG

           'He is walking a little.' (e.g. about a baby in a particular situation)

The same distinction is observed with respect to diminutive marking that expresses the size and value of the individual denoted by the subject. The suffix *-qej* is attached after the agreement markers if the stem is adjectival (25). It can be inserted in two different positions when the stem is verbal, and the resulting expressions are interpreted differently (26). Sometimes the stem is incompatible with the diminutive marker (27).

(25)   a.   pojɣə-n   nə-ppəłu-qine-qej

           spear-ABS   ST-small-ST.3SG-DIM

           'The [nice and tiny] spear is small.'

       b.*pojɣə-n   nə-ppəłu-qe.et-qin

           spear-ABS   ST-small-DIM.VB-ST.3SG

(26)   a.   nə-qametwa-qena-qaj

           ST-eat-ST.3SG-DIM

           'The [nice and tiny] one is a heavy eater.'

b. nə-qametwa-qa.at-qen

ST-eat-DIM.VB-ST.3SG

'The [nice and tiny] one is eating.'

(27) a.*nə-pkir-qine-qej

ST-arrive-ST.3SG-DIM

Expected meaning: 'The nice and tiny one arrives all the time.' (lit. a small arriver)

b. nə-pkir-qe.et-qin

ST-arrive-DIM.VB-ST.3SG

'The [nice and tiny] one is arriving.'

I showed that adjectives and stative forms of verbs receive same morphological marking but differ in their derivational capacities. However, the crucial contrast between verbs and adjectives is that verbs can attach various tense and aspectual markers, while adjectives are only used in the 'frozen' stative form that can be interpreted as referring to present or past (28a–b). A copula is inserted to express other TAM-characteristics, in this case the adverbial marker -ʔew is attached to the adjectival stem but the stative prefix *n-* is retained (28c)[8]. The omission of the stative marker leads to ungrammaticality (29b), the use of fully inflected adjectival form is also impossible in copular sentences (29c).

(28) a. uunʔə-t   n-etɬeɣ-qine-t

berry-ABS.PL   ST-sweet-ST.3SG-PL

'The berries are/were sweet.'

b. ajwe   ɣəm   n-uunʔ-u-jɣəm,   uunʔə-t   n-etɬeɣ-qine-t

yesterday I.ABS ST-berry-CONSUME-NP.1SG berry-ABS.PL   ST-sweet-ST.3SG-PL

'I was eating berries yesterday; the berries were sweet.'

c. mes-n-erm-ʔew   nʔə-twa-ɣʔa-n   […]

APPR-ST-strong-ADV   COND-be-TH-IRR.2/3SG.S

'If you were only a bit stronger…' [Dunn 1999: 279]

(29) a. ŋinqej   n-ikw-ʔew   ra-twa-ʔa   iɣər   jep   nə-siwtə-qin

boy.ABS ST-tall-ADV FUT-be-TH   today   yet   ST-short-ST.3SG

'The boy will be tall but now he is short.'

---

[8] Interestingly, a copula has to support a comparative form of adjective but in such context the stative prefix *nə-* disappears (i). The same form is used with other lexical verbs (ii).

(i)   ətɬon   tumɣə-k   ənpə-ŋ   wa-ɬʔə-n

(s)he.ABS   friend-LOC   old-ADV   be-ATTR-ABS

'He is older than [his] friend.' [Muravyova et al. 2001: 314]

(ii)   ətɬon   sakettə-k   taŋə-ŋ   nə-tipʔejŋe-qin

(s)he.ABS   sister-LOC   good-ADV   ST-sing-ST.3SG

'She sings better than [her] sister.' [Muravyova et al. 2001: 314]

b.*ŋinqej   ikw-ʔew   ra-twa-ʔa   iɣər   jep   nə-siwtə-qin

       boy.ABS tall-ADV   FUT-be-TH   today   yet   ST-short-ST.3SG

c.*ŋinqej   n-ikwə-qin   ra-twa-ʔa   iɣər   jep   nə-siwtə-qin

       boy.ABS ST-tall-ST.3SG   FUT-be-TH   today   yet   ST-short-ST.3SG

Adverbs derived from adjectival stems have the same morphological marking as the ones in copular sentences, (30) and (21b), which supports the analysis of copulas as lexical verbs.

(30)   ənpənasɣə-n   n-untəm-ʔew   nə-wakʔo.twa-qen   wəkwə-k

         old.man-ABS   ST-calm-ADV   ST-sit-ST.3SG   stone-LOC

         'The old man was sitting calmly on the stone' [Muravyova et al. 2001: 382]

When a qualitative stem is marked with attributive suffix *-łʔ(ə)-*, a nominal projection is added and the complex gets equative case in copular constructions (31).

(31)   ɣəm-nin   ekək   erme-łʔ-u   n-it-qin

         I-POSS   son.ABS   strong-ATTR-EQU   ST-be-ST.3SG

   'My son is strong too.' [Skorik 1961: 351]

To sum up, adjectives, or qualitative stems, constitute a distinct class. Morphologically adjectives resemble stative forms of verbs but they differ in their properties. Adjectives cannot attach any TAM-markers, so a copula is used to express the relevant meaning. The stem is then marked with the adverbial suffix *-ʔew*.

4.2. Adjectival Predication: Analysis

It is clear that the marking of qualitative stems depends on the presence of copula or other lexical verb in a sentence. If the adjective functions as predicate on its own, it has the marking of a stative verbal predicate. When the copula is inserted to support the spell-out of tense and aspectual features, the qualitative stem is marked with *-ʔew*. Thus, the analysis presented in previous section can be extended to account adjectival predication. Along the lines of Distributed Morphology of [Halle & Marantz 1993], I assume that 'qualitative stems' are category-neutral lexical roots. An adjective is derived by merging a null functional head a^0, while adverbs involve a functional head adv^0, realized by the suffix *-ʔew*.

I propose that when a small clause is merged as a direct complement of T^0, it has a smaller number of tense and aspectual interpretations, compatible to the ones of other nonverbal and stative verbal predicates. An example of such structure is given in (32). The adjectival predicate then raises to T^0 to check its uninterpretable ϕ-features and agree with the subject.

(32) a. ətɬon n-ikwə-qin

      he.ABS ST-tall-ST.3SG

      'He is tall.'

b.

```
                  TP
                 /  \
             PredP   T⁰
             /  \
           DP    Pred'
          / \    /  \
       ətɬon  aP   Pred⁰
             / \
           nikw-
```
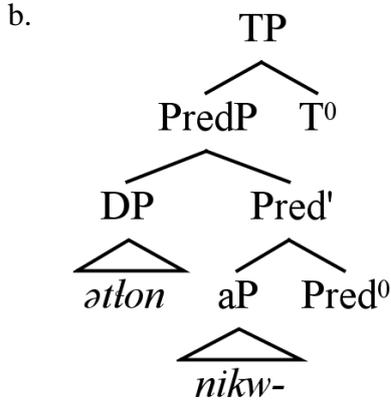
Similar to (13), the insertion of a copula triggers the emergence of an eventive functional projection responsible for adverbial marking on the stem (33). Adverbs do not have ϕ-features to check, so no movement takes place.

(33) a. ŋinqej n-ikw-ʔew ra-twa-ʔa

      boy.ABS ST-tall-ADV FUT-be-TH

      'The boy will be tall.'

b.

```
                         vP
                        /  \
                      VP     v⁰
                     /  \     |
                 PredP   V⁰  EVENT
                 /  \    |
               DP   Pred' -twa-
              / \    /  \
          ŋinqej advP  Pred⁰
                  / \
               nikwʔew
```
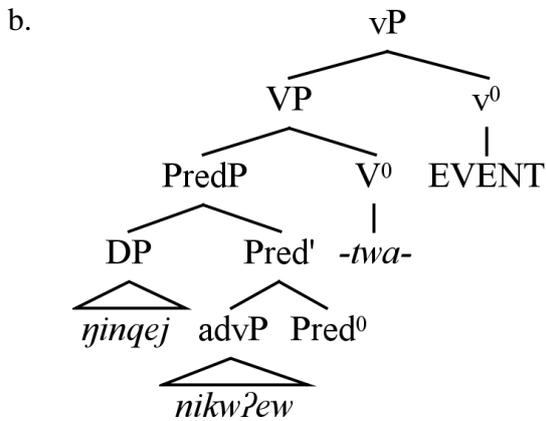
In (32b) and (33b) I put the prefix *n(ə)-* in the domain of functional projections, i.e. aP and advP. One could object that it marks habitual aspect and should be placed above PredP. I propose that *n(ə)-* can be inserted in two different positions. The first position must be close to the lexical root. When *n(ə)-* is inserted there, it does not convey any aspectual meaning. Instead, it delimits the categorial set for the root to just two categories: adjective and adverb. The second possible position is indeed above the PredP, e.g. Asp^0 or T^0. The insertion of the prefix in this position is common among verbs. In this case, the semantic input of the prefix can be roughly described as follows: the tense and aspectual characteristics of the complement are 'unmarked', i.e. the same as the ones of nonverbal predicates. Further on I provide several arguments in favor of this opinion and discuss

two problems of the analysis.

Examples in (24) demonstrate that *n(ə)-* can occur to the left and to the right of the approximative prefix *mes-*. The resulting expressions have different meanings: one of them denotes an action and the other one a property. It is the position of the prefix that triggers the difference in interpretation. Moreover, the prefix is preserved in adverbs formed on the basis of qualitative stems even when the copula has its own *nə-* (34a), which would be redundant if the 'adverbial' *nə-* marked the aspectual properties of the predicate. Lastly, the prefix is retained in forms with the diminutive suffix *-qej*. Adjectives with diminutive marker behave like nouns, which signals the presence of the nominal projection above the adjectival one. Remarkably, not only *nə-* but also the stative third person singular suffix *-qin* is preserved in such forms (34b).

(34) a. ətłon   n-erm-ʔaw   nə-twa-qen

      he.ABS   ST-strong-ADV   ST-be-ST.3SG

      'He is strong.'

    b. ɣət   nə-teŋ-qine-qej-iɣət   jełʔo-qaj-eɣət

      you.SG.ABS   ST-good-ST.3SG-DIM-NP.2SG   cousin-DIM-NP.2SG

      'You are my good little friend.'

However, if *n(ə)-* is necessarily involved in adjectival and adverbial formation, why is it absent in comparative constructions (see footnote 7)? Although there is not enough evidence to insist on a particular point of view, two forms of converbs use the same adverbial suffix (35), which makes me suspect that comparative forms can also be analyzed on par with converbs as involving some other structure.

(35) a. tʔətłʔe-n   taŋ-łajwə-ŋ   nʔeł-ɣʔ-i

      sick.man-ABS   GOOD-walk-ADV   become-TH-2/3SG.S

      'The sick man became capable of walking.' [Nedjalkov 1994: 338]

    b. ʔaqa-pere-ŋ   ʔəttʔ-e   t-re-trił-ŋə-n   tekisɣə-n

      BAD-take-ADV   dog-ERG   1SG.S/A-FUT-put-FUT-3SG.O   meat-ABS

      'I'll put the meat so that it would be impossible for the dogs to take it.' [Muravyova et al. 2001: 344]

The other obvious problem for the analysis is created by rare examples of *nə-*doubling. According to the hypothesis, *nə-* closer to the root denotes that its complement is either an adjective or an adverb, and the other *nə-* is responsible for the aspectual interpretation of the predicate. The adjective in (36) is most probably a modifier, not a predicate. Hence, there is not enough evidence to assume that the first *nə-* is aspectual and consequently 'verbal'. It is possible that both prefixes denote that the root is an adjective but this fact receives no explanation within the current approach.

(36)   notarme-ŋqasa   orɣ-etə   ɣe-kwut-lin   qoło=ɁəttɁə-sɣə-n

      Notarme-NEAR   sledge-DAT   PF-tie-PF.3SG   great=dog-AUG-ABS

      nə-łɣi-nə-mejəŋ-qin   ɁəttɁə-n

      ST-INTS-ST-big-ST.3SG   dog-ABS

      'Close to Notarme was a dog of giant size tied to the sledge.' [Muravyova et al. 2001: 248]

Eventually, adjectival, or 'qualitative', predicates are similar to other nonverbal predicates in that they change their form in presence of a lexical verb. No Case assignment is involved but the same features trigger adverbial marking on the qualitative stem. The difference in the structure above PredP and the dependence on eventuality argument introduced by the lexical verb brings together several distinct phenomena observed in nonverbal predication. Thus, the analysis proposed in section 3 can also account for the shift in marking of adjectival predication.

5. Conclusion

In this paper I described several types of nonverbal predication and proposed a unified analysis that accounts for almost all examined phenomena. I started with noting that equative and predicational sentences receive the same morphological marking and can be analyzed in the similar manner. Moreover, I conjectured that the functional head Pred^0 establishes nonverbal predication in the small-clause configuration.

Then I investigated case-marking patterns in nominal predication and, following [Matushansky 2008], suggested that Case is determined by the whole structure above the node to which the Case is assigned and not only by Pred^0. Thus, all Cases are realizations of bundles that are formed by percolation of the features assigned by different heads above the term. Absolutive case appears on the predicate if the small clause merges as a complement of T^0, while equative case is assigned in the presence of a copula or any other lexical verb. When the subject is first or second person and there is no copula, nominal predicates move to T^0 to agree with the subject. However, they do not undergo movement, if the subject is third person singular, because they lack the necessary ϕ-features to check. Locative PPs can also function as predicates, but they do not receive special case marking because P^0 is a barrier for Case percolation, they also do not move, as they are not specified for ϕ-features.

In section 4, I extended the analysis to account for two different patterns of adjectival predication. The interpretation of 'qualitative' roots depends on their morphological marking. If the small clause is a complement of T^0, the functional head a^0 is projected and the predicate receives adjectival marking. If a lexical verb, including a copula, is added, the root projects advP and gets the adverbial marker *-Ɂew*. I also suggested that the prefix *nə-*, which appears on adjectives, adverbs

and verbs, can be generated in two different positions, triggering verb-like and adjective-like interpretations. The rare cases of *nǝ*-doubling constitute a problem for this analysis, because at least in some sentences both prefixes seem to be interpreted in the same way.

Not only *nǝ*-doubling requires further investigation. It is essential to find out which verbs can take a small clause as its complement and establish if there is any difference in the structures of small-clause complements of various lexical verbs. The thorough examination of small clauses and their properties may provide some new insights to the structure of nonverbal predication in Chukchi.

Abbreviations

1	first person	INV	inverse
2	second person	IPFV	imperfective
3	third person	IRR	irrealis
A	transitive subject	LOC	locative
ABS	absolutive	NEAR	near
ADV	adverbial	NEG	negation
APPR	approximative	NP	nominal predicate
ATR	attributive	O	object
AUG	augmentative	ORD	ordinal
BAD-…-ADV	impossibility converb	PF	perfect
COND	conditional	PFV	perfective
CONSUME	consume	PL	plural
DAT	dative	POSS	possessive
DES	desiderative		
DIM	diminutive	INC	incorporation
EQU	equative	PTCL	particle
ERG	ergative	REL	relational
FUT	future	RESTR	restrictive
GOOD-…-ADV	possibility converb	S	intransitive subject
IN	inessive	SG	singular
INTJ	interjection	ST	stative
INTS	intensifier	TH	thematic suffix
		VB	verbalizer

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Polina Kasyanova
National Research University Higher School of Economics, School of Linguistics, pakasyanova@gmail.com