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**IMPERATIVE PARADIGM IN  
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LANGUAGES IS NOT FORMALLY  
HOMOGENEOUS**

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## **IMPERATIVE PARADIGM IN CHUKOTKO-KAMCHATKAN LANGUAGES IS NOT FORMALLY HOMOGENEOUS<sup>3</sup>**

“Language is simple, it is the linguistic  
models we provide that are complex.”

Aleksandr Kibrik

In this paper, we argue that the imperative paradigm in Chukotko-Kamchatkan languages, often viewed as morphologically homogeneous, is — at least in terms of its morphology — a composition of several independent inflectional categories.

JEL Classification: Z.

Key words: Chukotko-Kamchatkan, imperative, hortative, jussive, homogeneous paradigm

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## 1. Introduction

Chukotko-Kamchatkan languages are traditionally analyzed as having an imperative paradigm featuring forms of all persons, thus constituting a typologically rare case of homogeneous imperative paradigm ([Auwera et al., 2005, 2013]; [Goussev, 2013]). In this paper, we challenge this view. We show that, in terms of their morphological makeup, the forms of command addressed to the second person are different from the forms of command addressed to the first or third person; and it is not clear whether the command to the third and first person are homogeneous, either. Our argument is based on an analysis of verbal morphology that has the following stipulations. First, we argue that only first person markers are allowed in a prefix agreement slot. This is in accordance with an observation that languages with inverse may be asymmetrical in terms of person agreement position relative to the verbal root (Chukotkan languages are indisputably inverse). All other prefixes may be analysed as mood markers. Second, Chukchi is a highly agglutinative language. Under the analysis that argues for a homogeneous imperative paradigm, imperative forms are cumulative and express person other than first in the prefix position. Under the alternative analysis suggested below, the prefixes which appears in the imperative and jussive are re-interpreted as a pure mood markers. This avoids positing exceptional cumulation (cf. [Maltseva, 1998: 28]) and exceptional second and third person prefixes.

A note in terminology is in place, for the sake of clarity. Below we will use the following terminology referring to cross-linguistic functional categories rather than language specific morphological categories: imperative for a second person volitional, i.e. a command to the addressee(s) (English *Come in!*); jussive for a third person volitional, i.e. command to a non-locutor (English *Let him come in!*), and hortative for a first person volitional, i.e. a command / invitation to the addressee to take part in a common action (English *Let's go in!*). This use of the terms follows the terminology that has been established and spreads since [van der Auwera et al., 2005] and [Dobrushina, 2011, 2012]. When, however, we use terms such as imperative paradigm, we mean a combination of different cross-linguistic functional categories in one language specific series of verbal forms. Thus, the case of Hungarian or Lingala as analysed by van der Auwera represent cases of an imperative paradigm including all functional categories above (maximal system in their terms), while the case of Meadow Mari represent a case of an imperative paradigm including only the imperative and jussive categories [van der Auwera et al., 2005].

Before proceeding, we will provide some general information on Chukotko-Kamchatkan. The languages are spoken in Russia's Far East, on the peninsulas of Chukotka and Kamchatka. Traditional classification groups Chukchi with various dialects (5,000 claimed speakers out of

15,900 ethnicity) together with Koryak with various dialects (1,700 claimed speakers out of 8,000 ethnicity). Some classifications isolate Alutor (25 claimed speakers out of 2,000 sub-ethnicity), while many other consider it a Koryak dialect. Kerek, another lect of the family, also closer to Koryak, is extinct. Itelmen (82 claimed speakers out of 3,180 ethnicity) is either considered a separate language isolate or a separate branch of the family. For details on classification, see [Comrie, 1983], [Fortescue, 2003]. Chukotko-Kamchatkan have been in a long-standing contact with Tungusic languages, and later with Russian. They are highly synthetic, with very prominent incorporation, polypersonal agreement combined with a relatively rich system of case markers, including circumfixes and inflectional reduplication. General descriptions of the languages are provided in [Bogoraz, 1922], [Zhukova, 1972], [Volodin, 1976], [Dunn, 1999], [Kibrik et al., 2004] etc. Several articles are specifically or to a great extent dedicated to the analysis of the imperative paradigm, including [Volodin, 1992] on Kerek and [Nedjalkov, 1994] on Chukchi.

In this paper, we only analyze prefixal marking in all languages, and only provide plural forms (while Koryak and Alutor also have dual). The reason for this is that the system of suffixes, including the suffix *-la* that distinguishes dual and plural forms, is complex and by and large does not interact with the system of volitional forms.

The structure of the paper is as follows. In Section 2, we introduce and discuss the traditional view on the Chukotko-Kamchatkan imperative as a “maximal system” in terms of [van der Auwera et al., 2005]. In Section 3, we discuss the evidence from intransitive conjugation and provide evidence against homogeneous interpretation of expression of the imperative, hortative and jussive categories. In Section 4, we discuss transitive conjugation, which provides a complication to our analysis, and suggest a solution. In Section 5, we discuss the problem of the “command” addressed to first person singular. In Section 6, we take a different, functional perspective to show that, from the viewpoint of the use of these forms, they are indeed aligned together, as could be implied from the homogeneity perspective. Section 7 is a summary of the discussion.

## **2. A homogeneous view on the Chukotko-Kamchatkan imperative paradigm**

In the descriptive and typological treatment of Chukotko-Kamchatkan languages, it is a long established view that commands to the first (hortative), third (jussive) and second (imperative) person constitute one single morphological paradigm. The grounds for such view, indeed strong, are as follows. Unlike many languages, all volitional forms in Chukotko-

Kamchatkan are synthetic and formally distinct from all other forms in the verbal paradigm. In the following table we provide volitional paradigms (prefixes) in the intransitive conjugation in Chukchi, Alutor and Itelmen.

**Table 1. Imperative paradigm in Chukotko-Kamchatkan**

	Chukchi		Alutor		Itelmen	
	SG	PL	SG	PL	SG	PL
1	<i>m-...</i>	<i>mən-...</i>	<i>m-...</i>	<i>mən-...</i>	<i>m-...</i>	<i>mn-.../ xn-...</i>
2	<i>q-...</i>	<i>q-...</i>	<i>q-...</i>	<i>q-...</i>	<i>k-...</i>	<i>k-...</i>
3	<i>n-...</i>	<i>n-...</i>	<i>n-...</i>	<i>n-...</i>	<i>xn-...</i>	<i>xn-...</i>

In [Birjulin & Khrakovskij, 1992], imperative paradigms are defined on a functional basis (expression of imperative, hortative and jussive), and then non-second persons are formally compared to the second person. For the imperative paradigm to be morphologically homogeneous, the non-second person forms need to be dedicated (that means that the imperative should be the main function of these forms, otherwise a different formal category is argued to be used to express the function — cf. Russian *удем* which is morphologically identical to 1PI indicative) and morphologically similar in the sense of the means they use (especially in terms of periphrastic vs. synthetic expression — a paradigm in which an imperative is expressed synthetically and jussive or hortative periphrastically does not count as homogeneous). Ultimately, all dedicated synthetic volitional forms constitute a homogeneous paradigm. Chukotko-Kamchatkan volitionals qualify as homogeneous paradigm.

Consider the following example from [Birjulin & Khrakovskij, 1992]. Turkologists include jussives in the imperative paradigm because these forms are by and large dedicated to expressing commands and are formally homogeneous; but they do not include hortative, because a form from the optative paradigm is used in this function. (Note that [Dobrushina, 2007] shows that the conventional Turkological term ‘optative’ stands for a dedicated hortative, so that the Turkic paradigm becomes homogeneous in this definition.)

**Table 2. Homo- and heterogeneity, some examples**

	Tatar	Russian	English
Hortative	<i>bar-ijk</i> go-1PL.OPT	<i>uð-em, uð-em-me</i> go-1PL, go-1PL-2PL	<i>let's go</i> HORT go
	synthetic, =Optative	synthetic, dedicated?	periphrastic, dedicated
Imperative	<i>bar, bar-igiz</i> go(IMP,SG), go-IMP.PL	<i>uð-u, uð-u-me</i> go-IMP(SG), go-IMP-2PL	<i>go</i> go.IMP
	synthetic, dedicated	synthetic, dedicated	synthetic (dedicated?)
Jussive	<i>bar-sin, bar-sin-nar</i> go-JUSS, go-JUSS-PL	<i>нужь (он) uð-em</i> Juss (he.NOM) go-3SG.PRS.IND	<i>let him go</i> JUSS he.OBL go
	synthetic, dedicated	periphrastic, dedicated	periphrastic, dedicated

A slightly more elaborate approach is used in [van der Auwera et al., 2013]:

“...two imperative-hortative forms will be called homogeneous if they are formed using the same kind of morphological or syntactic means. The following parameters are relevant: (i) is the morphology or the syntax dedicated to the imperative or hortative? (ii) insofar as the strategy is morphological, is it of the same type in terms of distinctions such as base modification vs. affixation or, within affixation, is the relevant affix ordered in the same position relative to the base? and (iii) insofar as the strategy is syntactic, is it of the same type in terms of the presence of e.g. imperative-hortative particles or pronouns? Note that in determinations of morphological homogeneity, we allow zero morphemes.”

This definition is more specific in terms of ‘similarity’ of morphological means — cf. (ii). According to this, slightly stricter definition, Chukotko-Kamchatlan imperative paradigm also qualify as homogeneous (see Table 1).

Finally, [Goussev, 2013: 224] defines heterogeneity as follows: “two forms are considered formally heterogeneous if they are distinct in a stronger way than the two respective forms in a non-imperative paradigm.” Already in this sense, the paradigm is not fully homogeneous, because at least the distinction between the second and the third person is

heterogeneous. All moods except imperative have the same pre-root marking in the second and third person. Imperative, on the other hand, has different marking (see Table 1). This means that at least imperative and jussive categories are differentiated in a way that is stronger than in other moods. (This observation is irrelevant for van der Auwera and co-authors who allow for zero expression, so that Goussev's definition seems to be the strictest of all).

Notably, the conclusions that different authors draw from homogeneity of the volitional paradigm are very different from an author to another. For Nedjalkov's line of research, Chukotko-Kamchatkan paradigm is a typologically rare example of homogeneous imperative paradigm ([Volodin, 1992] on Kerek, [Nedjalkov, 1994] on Chukchi). [Dunn, 1999] introduces this paradigm as a paradigm of 'intentional' rather than imperative, assuming that intention is the only common component for all three person commands. It is however unclear in what sense the intention in the first person (intention of the speaker to carry out an action) is comparable to the intention in the second or third person (intention of the speaker to cause the addressee or a third person).

For Kibrik ([Kibrik, 2001], [Kibrik et al., 2004] on Alutor), the very homogeneity of the paradigm is an indication that this is not an imperative paradigm because, to him, imperative is a second person command by definition. He thus calls this paradigm 'optative'. His claim is based on two points:

(i) Imperative may only be applied to second person commands, because imperative includes locutory causation of the addressee; causation may not be addressed to the self or to an absent person. Obviously, this is a definitional / terminological objection; cf. also [Dobrushina, 2012] on the involvement of the addressee into jussive situations and the obvious involvement of the addressee in hortative situations (these forms could be considered second person inclusive rather than first person inclusive command)

(ii) There is another form in Alutor that Kibrik suggests to consider the imperative, the circumfixal *ya*-[Inv]-Verb.Root-[PI]-(*t*)*a*; cf. from [Kibrik et al., 2004]:

(1) ...*y-awwav-a rara-ŋ* ...

IMP-leave-IMP house-DAT

'... go home...' [23:21]

(2) ...*asyiwut yammə y-ina-qura=nmy-lqiv-la-ta*.

now I.NOM IMP-INV-reindeer=kill-LQIV-PL-IMP

'... from now on kill reindeer for me.' [20:97]

Kibrik notes that the form is rare in the texts but rejects the interpretation of the forms corresponding to Kerek / Chukchi imperative paradigm as imperatives; to him, the imperative reading of the second person optative is an implicature ('want that the addressee P' -> cause that the addressee P by illocution; cf. subjunctive used as imperative in indirect speech acts): "In sum, from the point of view of the proposed analysis of the optative, 1st and 3rd person forms are most closely related to its prototypical meaning, while 2nd person forms are the natural extension of this meaning towards semantics of the imperative."

Dunn and Kibrik's points of view are comparable in that they are based on the uses of non-second person forms. The problem with this approach is that second person forms of the 'intentional' / 'optative' paradigm seem to have expression of second person command as their core meaning (even if along with additional functions). The stipulation that the true Alutor imperative is the form in *ya- -ta*, this does not sound very convincing, the form being peripheral and infrequent.

But the important thing remains: if we admit that the imperative paradigm is homogeneous, and if we follow the definition of heterogeneity by [Auwera et al., 2013], we have a case where hortatives and jussives align with the main expression of second person command, which amounts to a rare typological configuration anyway, whether we call it imperative or not. In this paper, instead of solving the problem of the 'typologically rare configuration' by stipulating that the paradigm is not an imperative we intend to show that the so-called imperative paradigm is not morphologically homogeneous.

To our knowledge, [Maltseva, 1998] on Alutor is the only author who suggests a possibility of an alternative view on the imperative paradigm. She refers to the typological observations that assembling all volitional forms into one paradigm is cross-linguistically rare. She then indicates that Alutor is very close to the agglutinative prototype. In all non-imperative forms, be it indicative or oblique moods, the first person is expressed by a prefix separate from the mood prefix (indicative is unmarked). Under the conventional view of Chukotko-Kamchatkan, imperative prefixes are cumulative morphemes combining mood (imperative) with person. She argues that considering first, second and third person commands as separate moods solves this problem of 'unexpected cumulation' (in addition to placing Alutor in a typologically widespread language type). We add that, according to this logic, Chukotko-Kamchatkan imperative paradigm in a certain sense ceases to qualify as homogeneous at least in Goussev's definition of homogeneity. While Goussev himself classifies Chukchi as a language with a homogeneous paradigm, Maltseva's consideration may be counted as indication of heterogeneity in Goussev's own terms. Indeed, cumulative expression of a meaning may be considered as a stronger distinction than agglutinative one.



### 3. Intransitive imperative paradigm is not homogeneous

Let us start with the intransitive paradigm. In the indicative, the prefix slot is present only in the first person, singular or non-singular. Second and third person bear no prefix. All persons have distinctive suffixes (not presented in the table below). Other moods, except imperative (first column), behave similarly.

**Table 3. Chukchi moods**

	Imperative	Indicative	Conjunctive
1SG	<i>m</i> -...	<i>t</i> -...	<i>t</i> -ʔ-...
1PL	<i>mən</i> -...	<i>mət</i> -...	<i>mən</i> -ʔ-...
2SG	<i>q</i> -...	∅-...	<i>n</i> ʔ-...
2PL	<i>q</i> -...	∅-...	<i>n</i> ʔ-...
3SG	<i>n</i> -...	∅-...	<i>n</i> ʔ-...
3PL	<i>n</i> -...	∅-...	<i>n</i> ʔ-...

It is obvious from Table 3 that the prefix slot is filled by a mood prefix (none in the indicative), preceded by another marker in the first person, naturally understood as first person marker. We have two options. Either the prefix slot has a zero marker for both second and third person, or the structure of the wordform is such that only first person but not other person markers may appear in the first slot. Not only the first solution is more parsimonious in that it does not introduce morphological zeros. It has been observed for languages with inverse system that person markers may have different position with respect to the verbal root, first person preceding and second person following it [Heath, 2004: 1010].

Let us assume that, outside the imperative paradigm, the only person marker that may appear in the prefix slot is first person. If we apply this to the imperative paradigm, the interpretation of the prefix markers is as follows. The prefix *q*- is the marker of imperative (imperative category rather than second person of the imperative paradigm; that is, command to the second person). The marker *n*- apparently expresses jussive, or third person command.

If we now look at first person non-singular, we see that, unlike first person indicative, the prefix slot is taken by *mən*-. The same form of the first person non-singular marker appears in

conjunctive. In conjunctive, it is obviously a result of assimilation of */mət/ + /nʔ/ -> /mənʔ/*, where */nʔ/* is the prefix of the conjunctive (we leave aside the question of whether this is a composite marker). Then, we could try to analyse the hortative */mən/* similarly as resulting from */mət/ + /n/*. The Chukotko-Kamchatkan system then is reduced to a combination of imperative (second person command) and a system combining jussive and hortative categories. The latter is not unusual typologically (not very transparently, but this system is still present in English with *let him / them* for jussive and *let's < let us* for hortative), and certainly more common than the assumed homogeneous imperative paradigm. The following table describes the general structure of the paradigm in [Auwera et al., 2005] terms:

**Table 4. Chukotko-Kamchatkan volitional forms in terms of [Auwera et al., 2005]**

	SG	PL
1	Propositive (?)	Hortative (Jussive)
2	Imperative	Imperative
3	Jussive (Hortative)	Jussive (Hortative)

Note that, even if the last morphophonological stipulation about the hortative *mət* is not supported, we end up with the hortative which is not homogeneous to the rest of the paradigm at least in Goussev's terms. Indeed, unanalysable hortative *mən-* is more different from the jussive *n-* than e.g. first person non-singular conjunctive *mət-nʔ* (where the analysis is unquestionable) is different from third person conjunctive *nʔ-*. Indeed, in this sense, conjunctive follows the same pattern as indicative and other moods, while the assumed imperative paradigm does not.

Two issues that remain are, first, the first person of P in the transitive paradigm in Alutor and Koryak, and the 'imperative' form of the first person singular, transitive or intransitive alike. While the former is successfully — we think — resolved by a functional diachronic explanation (next section), the problem of the first person does not receive a satisfactory solution (Section 5).

#### 4. Transitive paradigm in Koryak and Alutor

To a great extent, all discussion in Section 3 also applies to the transitive paradigm. Only first person indexes appear in the pre-root position; these are the same *t-* and *mət-* as in the intransitive. However, when second person (singular or not) or third person singular A acts on first person singular P (you / he on me), inverse strategy arise, with a special inverse prefix *ina-*.

This prefix serves as an indication that the action is directed towards first person, and also detransitivizes the verb, so that the A assumes the S role. Cf. Table 5:

**Table 5. Alutor transitive imperatives with first person P**

	1SG.P	1DU.P	1PL.P
2SG.A	<i>q-ina-...</i>	<i>ənə-...</i>	<i>ənə-...</i>
2DU.A	<i>q-ina-...</i>	<i>ənə-...</i>	<i>ənə-...</i>
2PL.A	<i>q-ina-...</i>	<i>ənə-...</i>	<i>ənə-...</i>
3SG.A	<i>n-ina-...</i>	<i>ənə-...</i>	<i>ənə-...</i>
3DU.A	<i>ənə-...</i>	<i>ənə-...</i>	<i>ənə-...</i>
3PL.A	<i>ənə-...</i>	<i>ənə-...</i>	<i>ənə-...</i>

The problem for our analysis are the second and the third columns with second person Actors. Although these are second person commands, they do not contain *q-*. For Kibrik’s analysis of Alutor, this supports the idea that *q-* is a cumulative person/mood marker. Other markers in the paradigm (*ənə-*) he explains by a complex personal hierarchy [Kibrik, 2001, 2008]. Second person acting on non-singular first person requires special ‘low agent’ indexation, because the distance between the agent and the patient on the personal hierarchy is inverse and too big. Note that, in Alutor, this is not specific for imperative. The same phenomenon is observed across paradigms of all moods.

Another problem with second person Actors and non-singular P combinations is as follows. Above, we supported the idea of heterogeneity of the imperative paradigm by indicating that, except in the imperative, the pre-root part of the verbal complex may only contain first person prefix and is thus identical in the second and third persons. In the imperative, on the contrary, second and third person imperative are different (*q-* vs. *n-*). The fact that, in this special configuration of A and P, second person command is morphologically identical, in its pre-root part, to the third person command, undermines this claim.

We suggest the following solution, which is inspired by Kibrik’s approach but is conceptually different — and simpler. We agree that second person agent acting on first person non-singular is a special configuration that requires, in Alutor, a special way of marking. What

happens however is not using a low agent prefix which is also used in the third person but ‘paradigm borrowing’ from the third person.

To explain what we mean by paradigm borrowing and how this approach differs from the one by Kibrik, consider the following parallel. To express polite address, many languages use the third person forms instead of the second ones (Italian *viene*), or plural second person instead of singular (French *vous*). Such forms refer to the second singular person while being morphologically third person singular or second person plural forms. With time, this may lead to a new system in which a third person singular / second person plural form start referring to the second person not under politeness but as the main way of such reference. Indeed, in English *you* became the only way to refer to second person singular, and in Portuguese the former third person plural verbal forms ousted almost completely the form of the second person plural verbal form (now obsolete).

We agree with Kibrik that second person acting on first person non-singular receives a special treatment, distinct from first person singular P. We suggest, however, that what happened was grammaticalization of recruitment of third person forms.

To sum up this section, we suggest that, in addition to the use of the special antipassive inverse construction for 2A acting on 1SG.P, Alutor has developed a special system of demotion second person to third person when acting on 1NSG.P. Going from second person to third person command, one naturally comes to use a jussive form.

Kibrik treats *ənə-* as a combinatorial variant of the inverse suffix. This does not seem a plausible interpretation of this suffix. Unlike *ina-*, *ənə-* does not function as antipassive. The suffix slots are kept by suffixes indexing P. We tend to think the problem of the interpretation of *ənə-* is more a problem of interpreting Chukotkan inversion ([Comrie, 1980], [Kibrik, 2008]) and the status of third person forms. Note that the problem of *ənə-* is not generated by our own approach to the imperative but goes beyond the imperative paradigm. To conclude this section, we argued that the absence of the imperative *q-* in the forms of second person command in some of the forms is due to reanalysis of the jussive forms. The problem that remains is that of the ‘first person imperative’ *m-*.

## 5. First person imperative?

So far we avoided any discussion of the first person singular ‘imperative’ form. The status of this form is unclear in both formal and functional sense. On the one hand, the form is isolated from the rest of the imperative paradigm, at least on the analysis that groups first person plural hortative with third person jussive. First person singular is never indexed by *m-* prefix outside the paradigm, and cannot result from any morphophonological process involving *t-*

(regular first person singular prefix). First person plural, on the other hand, can be analysed into a combination of the first person non-singular (as in indicative) with the prefix *n-*. Note that the structure of the first person singular conjunctive is also unclear — if we isolate the subjunctive prefix *nʔ-*, the first person singular subjunctive is not expected to be prefixed with *tʔ-* (loss of *n-* is not explained).

**Table 6. First person singular prefixes in Chukotko-Kamchatkan, all moods**

	Imperative	Indicative	Conjunctive
Chukchi	<i>m-...</i>	<i>t-...</i>	<i>t-ʔ-...</i>
Alutor	<i>m-...</i>	<i>t-...</i>	<i>t-ʔ-...</i>
Itelmen	<i>m-...</i>	<i>t'-...</i>	<i>t-k'-...</i>

On the other hand, first person singular imperative is a category which is cross-linguistically functionally unclear. [Dobrushina & Goussev, 2005], for instance, suggest that in many languages with first person plural imperative category it is an invitation to a common action (as hortative is usually defined), thus inherently inclusive. While some languages are reported to use these forms in non-inclusive reading, the exact semantics is unclear (intentional? propositive?). Thus, while English *let us* may be used with non-inclusive reference (apparently, unlike *let's*), Italian *andiamo* or Russian *удем* are strictly inclusive.

Obviously, first person singular cannot be inclusive. Its status in the plural depends on (un)availability of non-inclusive readings of the first person non-inclusive imperative (thus, a non-hortative reading), evidence we currently do not have. A common use of the first person singular ‘imperative’ seems to be intentional future, which puts the form pretty much outside the imperative paradigm anyway. In their independent uses, they compete with future tense markers. It has been argued that there is no semantic contrast ([Volodin, 1976: 250], [Nedjalkov, 1994: 324]), but from our fieldwork experience with Chukchi we conclude that the form has an implicature of immediacy:

- (3)a.     tə-r-ajmə-γʔa  
           1SG.A-FUT-bring.water-TH  
           ‘I’ll bring some water.’
- b. m-ajmə-γʔa-k  
           HORT.SG-bring.water-TH-1SG.S  
           ‘I’ll bring some water (right now).’

The next section provides a preliminary comparative overview of the functional range of all person forms of the Chukotko-Kamchatkan ‘imperative paradigm’.

## 6. Functional view on homogeneity

In this section we will provide a survey of semantics and use of volitional forms in Chukotko-Kamchatkan and show that, from the functional point of view, they are in fact partially aligned. While we have argued that the imperative paradigm is not formally homogeneous, we can see that volitional forms of different persons can be used in similar contexts.

In their independent use, the semantics of the forms are different — to the extent that hortative, imperative and jussive are functionally different categories (see [Dobrushina & Goussev, 2005] on functional similarity between imperative and hortative and [Dobrushina, 2012] on functional similarity between imperative and jussive). Chukotko-Kamchatkan first person singular ‘volitionals’ are the outlier category as shown in Section 5 (compete with future tense). While first person singular forms are regularly used instead of future tense markers, we have no evidence whether it is possible for other volitional forms. [Volodin, 1976: 250] claims that for Itelmen it is true, but only provides examples with questions about the future (‘What if I...?’). But it seems that modal questions is a special context in which all volitional forms in Chukotko-Kamchatkan can be used. Cross-linguistically, imperatives are rarely attested in interrogative sentences.

In Chukotko-Kamchatkan, on the other hand, volitional forms often occur in questions about permission or obligation. In (4) from Alutor, the first person conjunctive form is used alongside the imperative in the previous clause; cf. also (5) (both are from [Kibrik et al., 2004]). Again, without a corpus study, it is not clear whether hortative, imperative and jussive categories are equally frequent in this function.

- (4) ...*taq.in*      *yə-nannə*      *q-in-iv-yi*      *matka*  
 about.what    you-ERG      IMP-INV-say-IMP.SG    whether
- tə-ʔə-nmə-nat*      *ʕopta*      *ətt-i*      *ŋita.ryara.*  
 1SG.A-CONJ-kill-3DU.P    all      they-NOM.DU      two.together
- {LC: Bad matter. My wife lives wrong.}  
 ‘What will you tell me? Maybe, shall I kill both of them?’ [30:5]

- (5) *...mik-ənak      ən-taqə-na?*  
 who-ERG.SG      JUSS.LOW.A-what.to.do-3(PL)  
 {LC: Skis are in their own place} .  
 ‘Who will do anything to them?’ [13:31]

Other such contexts are the uses of volitionals in negated future and purposive clauses that we are going to discuss now. Such uses are not attested in Itelmen, which has a different system of expressing negation; while for complex predication we simply do not have the relevant data. In Chukchi and Alutor, these uses are subjunctive-like, i.e. related to the domain of irrealis. In Chukchi, negative polarity in the future requires *qərəm* to be used together with the volitional form, and it is the only way to express this semantics:

- (6) *qərəm      n-ajmə-γʔa-n*  
 NEG.FUT      JUSS-bring.water-TH-IRR.2/3SG.S  
 ‘He won’t bring any water.’

Tentatively, one could argue that examples such as (6) are uses of the volitionals in subordinate clause, *qərəm* being a matrix predicate; but more research is needed. This would group negative future with purposive uses of the volitional forms in subordination. Nedjalkov indicates that volitionals are used in subordinate clauses of purpose in Chukchi [Nedjalkov, 1994: 326]. At least in Alutor there are examples of another special syntactic context, where volitionals are used under an evaluative predicate, ethic in (7) and epistemic in (8). It may well be that these uses are specified in evaluation of a future alternative:

- (7) *a-ŋeqə-ka      wutku    tiγ-uwwi    nə-tkiv-na(-wwi)*  
 NEG-bad-PRED    here      ski-NOM.PL    OPT-spend.the.night-3PL.S  
 ‘It is bad if the skis spend the night here’. [12:6]

(8) *aktaka unjunju nə-pila-ni-n nuta-ŋ*  
 impossible child.NOM JUSS-leave-3SG-3SG tundra-DAT

*aktaka nə-lqətə-n a-tirŋə-ka*  
 impossible OPT-go-3SG NEG-cry-PRED

{LC: Titkemesesen put up the jurk.}

‘He could not leave the child and go to the tundra, (because he) {i.e. the child} was crying.’

[7:48]

As a very preliminary summary, we can say that hortative (and the first person singular), imperative and jussive all functionally align in subordinate irreal clauses including purpose and evaluation of a future alternative. Other such parallel uses are negative polarity in the future (possibly, syntactically subordinate) and probably modal question. Actual frequency of these uses in different persons, and probably even their availability for all persons in all Chukotko-Kamchatkan languages, requires a study of the texts.

## 7. Conclusions

Contrary to the view common both in the studies of Chukotko-Kamchatkan languages and in the representation of their data in typological literature, hortative, imperative and jussive do not represent a morphologically homogeneous paradigmatic category. The view of these forms as homogeneous partly results from the fact that the criteria of homogeneity provided in the typology of imperative systems are usually somewhat loose. A closer inspection of the Chukotko-Kamchatkan forms reveals that the structure of the verbal complex is incompatible with the idea of (non-zero) expression, in the pre-root position, of any person other than the first. The prefixes usually taken to be person-mood markers are in fact pure mood markers, separating imperative and jussive functions into two different categories. On the other hand, a survey of the reports of the functions of these forms shows that they are functionally aligned in their secondary uses, especially in subordination. The forms are used in the same types of constructions in the irrealis domain, including purpose clauses, clauses of ethic or epistemic evaluation of future event, modal questions and negative future. The latter has a structure similar to subordination under evaluative adverb, so that the two functions may actually represent the same subordinative use.



## Abbreviations

1, 2, 3 — first, second and third person; A — agent; CONJ — conjunctive; DAT — dative; ERG — ergative; FUT — future; HORT — hortative; IMP — imperative; IND — indicative; INV — inverse; IRR — irreal; JUSS — jussive; LOW.A — low agent; NEG — negation; NSG — non-singular; OBL — oblique; OPT — optative; P — patient; PL — plural; PRED — predicative; S — intransitive subject; SG — singular; TH — thematic suffix.

## References

- Birjulin L.A., Khrakovskij V.S. (1992). Povelitel'nye predlozhenija: problema teorii [Imperative Clauses: Problems of Theory]. In: Khrakovskij V. S. *Tipologija imperativnyh konstrukcij [Typology of Imperative Constructions]*. Saint-Petersburg: Nauka, 1992, 55-63 [in Russian].
- Bogoras, W. (1922). *Chukchee. Handbook of American Indian Languages*. By F .Boas, part 2. Washington.
- Comrie, B. (1980). Inverse verb forms in Siberia: Evidence from Chukchee, Koryak, and Kamchadal. In: *Folia Linguistica Historica, vol. 14, issue Historica I/1, 61-74*.
- Comrie, B. (1983). The genetic affiliation of Kamchadal — Some Morphological Evidence. *Papers in Linguistics 16, 109-120*.
- Dobrushina, N.R., Goussev, V.Ju. (2005). Inclusive imperative. In: *Filimonova, E. (ed.) Clusivity. Typology and case studies of the inclusive-exclusive distinction. John Benjamins Publishing Company*.
- Dobrushina, N.R. (2007). Imperativ ili optativ? [Imperative or Optative?] In: *Tatevosov S. G. Misharskij dialekt tatarskogo jazyka. Oчерki po sintaksisu i semantike [Mishar Tatar: Syntax and Semantics]*. Kazan: Magarif [in Russian].
- Dobrushina, N.R. (2012). What is the jussive for? A study of third person commands in six Caucasian Languages. In: *Linguistics. Vol. 50. No. 1. 1-25*.
- Dunn M. (1999). *A Grammar of Chukchi*. Ph. D. Diss., Australian National University.
- Fortescue, M. (2003). Diachronic typology and the genealogical unity of Chukotko-Kamchatkan. In: *Linguistic Typology 7. 51-88*.
- Goussev V.Ju. (2013). *Tipologija imperativa [Typology of Imperative]*. Moscow: JaSK [in Russian].
- Heath, J. (2004). Person. In: *Morphology. An international handbook of inflection and derivation. Booij, Lehmann, Mugdan, Skopeteas, Kesselheim (eds.) Berlin: De Gruyter*.
- Kibrik A.E. (2001). Opyt morfologicheskoy rekonstrukcii kognitivnoj struktury (na materiale lichnogo deiksisa v aljutorskom jazyke) [Morphological Reconstruction of Cognitive

- Structure (based on Alutor personal deixis)]. In: *Vestnik MGU №6, 2001, 121-131 [in Russian]*.
- Kibrik A.E. (2008). Lingvističeskaja rekonstrukcija kognitivnoj struktury [Linguistic Reconstruction of Cognitive Structure]. In: *Voprosy Jazikoznanija №4, 2008, 51-77 [in Russian]*.
- Kibrik, A.E., Kodzasov S.V., Muravyova I.A. (2004). Language and folklore of the Alutor people. Suita: Japan.
- Maltseva, A.A. (1998). *Morfologija glagola v aljutorskom jazyke [Verbal Morphology in Alutor]*. Novosibirsk: Sibirskij Hronograph [in Russian].
- Nedjalkov V.P. (1994). Tense-aspect-mood forms in Chukchi. *Sprachtypol. Univ. Forsch. (STUF) 47, 1994. 4. 278-354*.
- van der Auwera, Johan, Nina Dobrushina & Valentin Goussev. (2013). Imperative-Hortative Systems. In: *Dryer, Matthew S. & Haspelmath, Martin (eds.) The World Atlas of Language Structures Online. Leipzig: Max Planck Institute for Evolutionary Anthropology*. (Available online at <http://wals.info/chapter/72>, Accessed on 2017-06-30.).
- Volodin, A.P. (1976). *Itelmenskij jazyk [The Itelmen language]*. Leningrad: Nauka [in Russian].
- Volodin, A.P. (1992). Imperativ v kerekskom jazyke [Imperative in Kerek]. In: *Khrakovskij V.S. Tipologija imperativnyh konstrukcij [Typology of Imperative Constructions]*. Saint-Petersburg: Nauka, 98-106 [in Russian].
- Zhukova, A.N. (1972). *Grammatika korjaksckogo jazyka: fonetika, morfologija [Grammar of Koryak: Phonetics and Morphology]*. Leningrad: Nauka [in Russian].

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