

# Contact-induced change: Russian, Altaic and the languages of Eurasia

Lenore A. Grenoble  
University of Chicago  
grenoble@uchicago.edu

## 1 Introduction

- Russian has been in sustained contact with multiple languages for centuries
- These are typologically & genealogically distinct languages
- Local language ecologies vary considerably in terms of:
  - demographics of the speaker population (numbers & age of speakers)
  - levels of multilingualism
  - levels of proficiency
- The local language ecologies are dynamic, changing over time, as is the larger Russian language ecology
- At present, there is massive and rapid shift to Russian
- So we have contact-induced change & attrition

### 1.1 Language sample

In this paper I examine contact between Russian and three branches of Altaic: Tungusic, Turkic and Mongolic.

- Evenki (ISO 639-3 evn; Tungusic; 4800 speakers in 2010)
- Kalmyk (ISO 639-3 kal; Mongolic; 80,500 speakers in 2010)
- Dolgan (ISO 639-3 dlg; Turkic; 1054 speakers in 2010)

and also:

- Aleut (ISO 639-3 ale; Aleut-Inuit-Yupik; 5 in Russian Federation (45 officially in 2010))
- Itel'men (ISO 639-3 itl; Chukotko-Kamchatkan; <20)
- Kildin Saami (ISO 639-3 sjd; Uralic; 300 speakers)

(2010 data from All-Russian Census)

## 1.2 Questions

We know that structural changes happen when languages are in contact. There are at least two core questions that need to be answered:

1. How do languages borrow structural elements from one another?
2. How exactly do borrowed structures appear in a language?

## 2 Usage-based grammar and frequency effects

A usage-based model of language change provides the theoretical framework that:

- brings together typological & social factors involved in contact-induced change
  - views language as socially embedded & constantly evolving
  - recognizes speakers as multiple agents in language situations:
  - speaker behavior is:
    - interactionally and functionally based
    - determined by social and cognitive constraints and motivations
  - usage & frequency are important factors in language change (Bybee 2003, Diessel 2007)
  - social interactions and networks in language variation and change
- ☛ Linguistic structures emerge from a confluence of interrelated patterns.

### 2.1 Pre-fabs

Data from contact situations in Russian Eurasia show two effects of formulaic sequences, or pre-fabs:

1. pre-fabs in the source language provide models for contact-induced change
2. fixed formulae provide chunks of texts that ‘rememberers’ invoke when asked to speak the (forgotten) language

In the first type the Russian pre-fabs provide models that are borrowed or adapted into the indigenous language, while in the second type speakers whose primary language is Russian resort to using remembered formulae in efforts to speak the indigenous language. The two different scenarios illustrate the different ends of the processes of acquisition and recall in spontaneous language use. From a cognitive standpoint:

- evidence that linguistic elements are easier to process when they are predictable within a given context (Levy 106)
- speakers maintain relatively even information density in spontaneous speech by reducing the form of more-predictable information and elaborating the form of less-predictable information (Jaeger 2006)

## 2.2 Challenges with usage-based approaches

For contact with Russian and language X, we have:

- very small databases
- some data (especially historically) was normalized, “purified” of Russian elements
- some Soviet data includes fabricated, unnatural sentences
- lack of consistency across databases (making cross-linguistic comparison challenging if not impossible)
- lack of longitudinal data
- lack of information about users

## 3 Modality in Russian

In this section I focus on the grammatical replication of two Russian modal constructions:

1. the *nado-construction*: the modal *nado* ‘[it is] necessary’
2. the *by-construction*: the conditional formed with the particle *by* and the L-participle of the verb
  - Deontic modality: *dolžen* ‘must’, a predicate adjective that takes a nominative subject and an auxiliary verb *byt’* ‘to be’ to form the future and past tenses. The verb agrees with the nominative subject.
  - Two impersonal verbs *sledovat’* ‘have to’ and *prixodit’sja* ‘have to’ are also used to signal deontic modality; as impersonal constructions, the logical subject is in the dative case
  - Necessity is signaled in Russian by the modal *nado* or *nužno*.

### 3.1 The *nado-construction*

- *Nado* is a modal adverb that takes a Dative Experiencer and an infinitive complement; the future or past tense is marked by the auxiliary *byt’* ‘to be’ in the 3rd singular neuter:

$$\text{DATIVE} + \textit{nado} + \left\{ \begin{array}{ll} \text{'be'} & \text{3.SG.NEUT} \\ \textit{bylo} & \text{PAST} \\ \textit{budet} & \text{FUTURE} \end{array} \right\} + \textit{infinitive}$$

### 3.2 Examples of the nado-construction

- (1) *mne nado sdelat' remont*  
mne nado sdelat' remont-Ø  
1.DAT.SG nado do-INF renovation-ACC.SG  
  
'I need to do renovations'

The verb *byt'* 'to be' is realized as zero in the present; but is overtly expressed in the future, or in the past as in (2) with the 3rd person singular past tense form *bylo*, or the future as in (3) with *budet*:

- (2) *mne nado bylo sdelat' remont*  
mne nado by-l-o sdelat' remont-Ø  
1.DAT.SG nado be-PST-NEUT.3.SG do-INF renovation-ACC.SG  
  
'I needed to do renovations'

- (3) *mne nado budet sdelat' remont*  
mne nado bud-et sdelat' remont-Ø  
1.DAT.SG nado be-3.SG.NONPST do-INF renovation-ACC.SG  
  
'I needed to do renovations'

The nado-construction is very frequent in CSR. In a lemma count of the 1000 most frequent words in the Russian National Corpus, *nado* ranks 91 ( $D = 96$ ) (Ljashevskaja & Sharov 2009). More specifically, we see *nado* occurs 993.2 instances/million and by 2322.4/million. coefficient variant  $D = 97$ . These counts are based on texts in the RNC from 1950-2000.

## 4 Evenki-Russian contact, mood and modality

**Target: R *ja dolžen vam rasskazat'* 'I should tell you'**

- (4) *bi: suntiki ulgutʃə:mətʃim*  
bi: sun-tiki ulgutʃə:mətʃi-m  
1SG 2PL-ALL tell-DEB-1SG  
  
'I should tell you' (Konstantinova 1964:186)
- (5) *bi: sindu: ulgutʃə:nəβ na:da*  
bi: sin-du: ulgutʃə:nəβ na:da  
1SG 2SG-DAT tell-CV.PURP-1SG nado  
  
'I should tell you'

**Target: R** *Čto tebe nado?* ‘What do you need?’

- (6) *ekun sindu: na:da?*  
e:kun-Ø sin-du: na:da  
what-NOM 2SG-DAT nado

‘What do you need?’

- (7) *ekunma si: na:dadzənni?*  
e:kun-ma si: na:da-dzə-nni  
what-ACC 2SG nado-IMPF-PRES-2SG

‘What do you need?’

Note: In CSR, the adjective *nužen* ‘need’ is used when a nominal is needed, as in (??) where it agrees with the nominal in gender, number and case:

- (8) *Mne nužna byla tvoja pomošč.*  
mne nužn-a byl-a tvoj-a pomošč-Ø  
1SG.DAT need-F.SG.NOM be-F.SG.NOM your-F.SG.NOM help-F.SG.NOM

‘I needed your help.’

In Evenki, only *nado* occurs:

**Target: R** *Mne nužno mjaso* ‘I need meat’

- (9) *mindu: ullə na:da.*  
min-du: ullə-Ø na:da  
1SG-DAT meat-NOM nado

‘I need meat’

- (10) *bi: na:dadzam ulləjo.*  
bi-Ø na:da-dza-Ø-m ullə-jo.  
1SG-NOM nado-IMPF-PRES-1SG meat-ACC.INDEF

‘I need meat.’

- (11) *bi: na:daβ*  
bi-Ø na:da-β  
1SG-NOM nado-POSS.1SG

‘my necessity’, ‘my needed thing’

- (12) *nujan na:dalβan o:kal*  
nujan na:da-l-βa-n o:-kal  
3SG nado-PL-ACC-POSS.3SG make-IMPER.2SG

‘Make the things that s/he needs’

In modern Evenki, the *nado*-construction uses a converb rather than an infinitive (which is a form that does not exist in Evenki). Frequently, this is a purposive converb, as in the following:

(13) Speaker GLL, born 1943, recorded in Iengra in May 1998, Iengra:

- a. *Kətə: uluki:l-bə βadzjo:tʃiŋkitin.*  
kətə: uluki:l-bə βa-dzjo:tʃi-ŋki-tin  
many squirrel-PL kill-IMPV-DUR-DISTAL.PST-3.PL  
‘They would kill many squirrels’
- b. *Inəŋi:du: ilandzə:raβa – tunŋdʒə:raβa əmuβuŋkin.*  
inəŋi:du: ilandzə:ra-βa – tunŋdʒə:ra-βa əmuβu-ŋki-n  
day-DAT 30-ACC – 50-ACC bring-DISTAL.PST-3SG  
‘In a day he would bring 30-50’
- c. *Dəmərə: biŋkin.*  
dəmər: bi-ŋki-n.  
boring be-DISTAL.PST-3.SG  
‘It was boring.’
- d. *Dolboni:βa xigdʒəjo:tʃiŋnənni.*  
dolboni:βa xigdʒəjo:tʃiŋnə-nni.  
night-ACC hide.remove-2.SG  
‘All night long you take off the hides.’

Lazareva, born 1943, recorded in Iengra in 1998:

- (14) *tar oron-mo ajat itʃət-tə-s nɑ:da*  
tar oron-mo ajat itʃət-tə:s nɑ:da  
that deer-ACC well look.after-CVB.PURP-2SG nado  
‘You have to look after that deer well.’

Kolesova, born 1930, recorded in Iengra in 1998:

- (15) *Bu: tatta:βun o:rəndə:βun nɑ:da bitʃə:n*  
bu: tatta:βun o:rəndə:βun nɑ:da bitʃə:n  
1NOM.PL study-CVB.PURP-1PL study-CVB.PURP-1PL nado be-PST-3SG  
‘We had to study, to study’ ⇨ *o:rəndə:βun* <Yakut
- (16) *Ilə si: hurudas nɑ:da?*  
I-lə si: huru-da-s nɑ:da  
where-LOC 2SG go-CV.P-2DG nado  
‘Where do you need to go?’

Anna, born 1948, recorded in Iengra in 1999:

(17) *Okazyvaetsja, dulindulin tfikuda: nado bylo.*

okazyvaetsja, dulindulin tfiku-da: nado by-lo  
it.turns.out in.middle cut-CVB.PURP nado be-PST-3SG.NEUT

‘It turns out, you had to cut it in the middle’

Note:

- 5 out of 10 Evenki speakers did not use any deontic modals or morphology in spontaneous speech

## 5 Mongolic

### 5.1 Kalmyk

Kalmyk: mostly we seem to get native morphology (as in *kërg-to* ‘thing-ASSOC, from Turkic \**kereK*, but there are a few examples of code-mixing, where the *nado*-construction is in Russian, as in (18a):

(18) Kalmyk (Baranova & Saj 2009: 773)

- a. *kelžänä enčän bičkän fotokartočka k pasportu nado*  
kel-žä-nä enčän bičkän fotokartočka k pasportu nado  
say-PROG-PRS this little picture.card to passport nado  
‘He says: you have to [glue] a little picture card to your passport’
- b. *burvən tri na četyre gižänä*  
burvə-n tri na četyre gi-žä-nä  
three-EXT three by four say-PROG-PRS  
‘3 x 4, he says.’

Whereas here in (19b), *nado že* may be better analyzed as an expression of surprise (see Padučeva 1996: 302) rather than a use of the *nado*-construction as defined here:

(19) Kalmyk, code-switching (Baranova & Saj 2009: 770):

- a. *melkätä usar xotə kedžə bolfgo*  
melkä-tä us-ar xotə ke-džə bolf-go  
frog-ASSOC water-INS food make-CV.IPFV become-PC.FUT-NEG-COP  
‘you can’t prepare food with water with frogs’
- b. *melkätgə varv-xə nado že*  
melkät-gə varv-xə nado že  
frog-ACC go.out-CAUS-PC.FUT nado PCT.EMPH  
‘You have to throw out the frog’

## 6 Turkic

Straughn (2011, 46) notes widespread borrowing of R *nado* into Turkic languages, citing also Sakha *naada*.

## 7 Other Eurasian languages

### 7.1 Itelmen

Itelmen (Volodin 1994: 336) does not have an inherited form of the conditional but instead calques constructions on the Russian models for *nado*-constructions and *by*-constructions.

- (20) *Tiʔnβeʔn ne nada isneʔn*  
ətix ne nado ona-bytʹ-sejčas-ix  
these NEG nado 3SG.FEM-to.be-now-3PL.GEN  
‘She does not need these.’

In (20) the Russian negative particle *ne* has replaced the native *tʹaʔm*. The construction as a whole is a calque from Russian, with the dative case replacing It allative-dative, as in below (21):

- (21) *φsakoj meλkeβ kkokazoʔan ktφλknen, a Kotxanke anka i nada*  
vsjakix koreškov varenyx prinesli-oni-ix, a Kutxu toga i nado  
all.kinds roots cooked brought-they-them but Kutxa that.GEN.SG EMPH nado  
They brought all kinds of cooked roots, and Kutxa needed that’

### 7.2 Kildin Saami

The construction has also been replicated in Kildin Saami. The normal construction in other Saami varieties would be to use a main verb with a nominative subject, such as the verb *dárbbahit* ‘to need, to have use of’ (Rießler 2007: 232). In Kildin Saami, where there is long-standing contact with Russian, and use of the illative case as in (23) occurs under the influence of analogous uses of the dative (see Szabó 1984: 36-37).

- (22) Russian (Rießler 2007: 332)  
*tebe ne nado znatʹ*  
tebe ne nado znatʹ  
2SG.DAT NEG nado to.know  
‘You don’t need to know’

and the construction in Kildin Saami (Rießler 2007: 332):

- (23) Kildin Saami (Rießler 2007: 332)  
*Tonnʲe e= be ti:dtʲe*  
Tonnʲe e= be ti:dtʲe  
2SG.ILL.SG NEG is.necessary.3SG to.know  
‘You don’t need to know’



## 8 Conditional built on the Russian model: the by-construction

The Russian by-construction: counterfactual

1. *by* = particle, NOM subject & finite verb (L-participle/past-tense form of the verb):

- (24) *esli by my vstretilis' 10 let nazad, vse bylo by po drugomu*  
esli by my vstretilis' 10 let nazad, vse bylo by po drugomu  
if by 1.NOM.PL meet-PST.PL 10 years ago, all be-PST.NEUT.SG by PREP different  
'If we had met 10 years ago, everything would be different'

2. with DAT experience & infinitive:

- (25) *tebe by takuju žizn'*  
tebe by tak-uju žizn'  
2.DAT.SG by such-FEM.SG life  
'you should have such a life'

3. with a negated nominal:

- (26) *gde by my byli, esli by ne feminizm*  
gde by my by-li esli by ne feminizm  
where by 1NOM.PL be-3.PL if by NEG feminism  
'Where would we be if it were not for feminism?'

- (27) *esli by ne ty, ne ty, ne ty*  
esli by ne ty ne ty ne t  
if by NEG 2NOM.SG NEG 2NOM.SG NEG 2NOM.SG  
'If not for you, for you, for you'

(Song by Aleksandr Kogan)

### 8.1 Borrowing/replication of R by-construction:

- Aleut *kum* (Golovko 2005)
- Itelmen *bu*
- use of Nivkh aif R *esli* 'if' (Gruzdeva 2000:124)
- attested in Karelian as early as the 16th-17th centuries (Õispuu 1998)

### 8.1.1 Aleut by-constructions

- (28) *ting hingu-laka-n agu-un kum ayu-laka-q*  
ting hingu-laka-n    agu-un                    kum ayu-laka-q  
me    push-NEG-CONJ AUX-COND-2.SG SUBJ fall-NEG-1.SG  
'If you had not pushed me, I would not have fallen.'
- (29) John 11:21, in Bergslund (1981, 123)  
*wangus a-na-â a-lix a-gu-un, kuma huyu-ng asâ-na-g-ulax*  
wangus a-na-â            a-lix    a-gu-un,            kuma huyu-ng    asâ-na-g-ulax  
here    be-PART-3.SG be-CONJ AUX-COND-2.SG would brother-my die-PST-3.SG-NEG  
'If You had been here, my brother would not have died.'

- assume borrowing of *kum/kuma* dates to beginning of heavy Aleut-Russian contact
- *kum/kuma* follows the regular phonological change if R *by* were borrowed (Bergslund 1994; Golovko 2005)

### 8.1.2 Itelmen by-constructions

- Itelmen conditional: prefix *kʔ-* <Chukotko-Kamchatkan **in combination with** *bi* <R *by* Volodin (1994, 332)
  - attested as early as Bogoras (1922, 740).
- (30) Text and glosses from Volodin (1994, 333):  
*Kəzza bi, d'ed'u, xod'bi kʔensatan, kurite.*  
kəzza bi, d'ed'u,            xod'bi    kʔensatan,    kurite  
2.SG by grandfather if.only-by go-by-2.SG-pour.out-3.SG trough  
'Grandfather, if only you would go and empty the trough'
- (31) Text and glosses from Volodin (1994, 333), recorded in 1968:  
*juʔn nuzuk kʔnezekas, manke esfe lutse nkʔtilin by našu žizn'.*  
juʔn nuzuk    kʔnezekas, manke esfe lutse    nkʔtilin    by našu žizn'  
here we.began to.think    how    still better change-by-1.PL-3.SG by our life  
'Then we started to think, how we could make our life better.'

## 9 Discussion

1. Both constructions have “frozen” words that do not take derivational or inflectional morphology
2. Both *nado* and *by* are in the top 100 most frequent words:

- lemma count of 1000 most frequent words in the Russian National Corpus
- *nado* ranks 91 (993.2 instances/million)
- *by* ranks 46 (2322.4/million)
- truncated form *b* occurs 70.5/million
- based on texts in the RNC from 1950-2000.

(Ljashevskaja & Sharov 2009)

## 10 Paths of change

### 10.1 Paths of change: Hypothesis #1

1. R *nado* and *by* are borrowed as lexical items
  - both are frozen forms
  - hypothesis: *nado* more readily borrowed than *by* (no lexical meaning)
2. in some languages (e.g. Evenki), the forms may be fully borrowed and reanalyzed as native lexemes.
  - ▣ they take native morphology & are fully incorporated into the grammatical system.
3. The *nado*-construction and *by*-construction are calqued, use both MAT-borrowing and PAT-borrowing:
  - R *nado* & *by* are borrowed
  - rest of the grammatical construction is copied, using the resources of the target language
  - this presupposes high levels of knowledge of grammatical structures of both languages
4. Code-switches replace the calqued constructions: As the target language becomes replaced by Russian, and speakers lose full fluency, they are more likely to speak Russian (to code mix) than to use the copied structures. Here the trigger may be the words *nado* and *by*, which may be the pivots for a code-switch.

### 10.2 Paths of change: Hypothesis #2

if code-mixing is a necessary precursor to morphosyntactic borrowing (see e.g. Myers-Scotton):

1. R *nado* and *by* begin to be used, first as R lexical items, then (possibly) as native lexical items
2. as Russian fluency increases, use of *nado*-and *by*-constructions occurs
3. these utterances represent code-mixes (alternations, see Muysken 2000) (Kalmyk?)
4. For speakers proficient in base language, *nado*- and/or *by*-constructions are replicated
  - replicated structures may co-exist with native (Itelmen?), or replace them (Evenki)

- this stage presupposes high levels of knowledge of the grammatical structures of both languages
5. If there is language attrition, R nado- and by-constructions replace the replicated constructions.

### 10.3 Some challenges

- At present, we have insufficient evidence to determine stages of borrowing.
- We also lack evidence to determine (if there are) stages of attrition. It is unclear if language attrition occurs inter-generationally or intra-generationally, or both.
- That is, are there linguistic differences between “rusty” speakers and speakers who did not fully acquire a given linguistic system?
- Thus, we cannot determine if, for example, the Kalmyk data represents an earlier or later stage of borrowing. If Hypothesis #2 is correct, it could be either.

## References

- Baranova, V. V. & S. S. Saj. 2009. Teksty. In S. S. Saj, V. V. Baranov & N. V. Serdobol'skaja (eds.), *Issledovanija po grammatike kalmyckogo jazyka*, vol. 5 (Trudy ILI RAN 2), 730–856. St. Petersburg: ILI RAN.
- Bogoras, Waldemar. 1922. Chukchee. In Franz Boas (ed.), *Handbook of American Indian languages*, vol. II, 637–903. Washington, D.C.: Smithsonian.
- Bybee, Joan. 2003. Mechanisms of change in grammaticization: the role of frequency. In Brian D. Joseph & Richard D. Janda (eds.), *The handbook of historical linguistics*, 602–623. Oxford: Blackwell.
- Diessel, Holger. 2007. Frequency effects in language acquisition, language use, and language change. *New Ideas in Psychology* 25. 108–127.
- Jaeger, T. Florian. 2006. *Redundancy and syntactic reduction in spontaneous speech*: Stanford University dissertation.
- Konstantinova, O. A. 1964. *Èvenkijskij jazyk*. Moscow-Leningrad: AN SSSR.
- Levy, Roger. 106. Expectation-based syntactic comprehension. *Cognition* 1126–1177.
- Ljashevskaja, O. N. & S. A. Sharov. 2009. *Chastotnyj slovar' sovremennogo russkogo jazyka (na materialax nacional'nogo korpusa russkogo jazyka)*. Moscow: Azbukovnik.
- Muysken, Pieter. 2000. *Bilingual speech: A typology of code-mixing*. Cambridge: Cambridge University Press.
- Rießler, Michael. 2007. Grammatical borrowing in Kildin Saami. In Jeannette Yaron Matras Sakel (ed.), *Grammatical borrowing in cross-linguistic perspective* 229-244, Mouton de Gruyter.
- Straughn, Christopher A. 2011. *Evidentiality in Uzbekh and Kazakh*: The University of Chicago dissertation.

Szabó, László. 1984. The function of the inessive and the dative-illative in Kola Lappisch. *Nordlyd. Tromsø University Working Papers in Language and Linguistics* 8. 4–52.

Volodin, Aleksandr Pavlovich. 1994. O vlijanii russkogo jazyka na itel'menskij. *Russian Linguistics* 323–340.