

EVIDENTIALITY ATTRITION IN BASHKIR

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Наша статья — о языке как живой функции: о последствиях языковых контактов, о реальном использовании языка человеком, о том, что языковая категория может вести себя по-разному в учебнике по грамматике и в речи носителя, — о всем том, о чем мы в свое время только начинали догадываться во время лекций Андрея Александровича на ОТиПЛе.

Introduction

In bilinguals, the linguistic systems of the languages mutually influence each other, and some features in L1 can be changed because of constant use of L2, which is known as L1 attrition (for review see Gallo et al. 2021). In this paper, we present an experimental study of evidentiality processing in the Bashkir language by two groups of bilingual speakers — Bashkir-dominant and Russian-dominant.

Evidentiality is an independent language category, the function of which is to indicate the source of information about the reported fact. The meaning expressed by the evidentiality category can be grammatically obligatory or lexically transmitted. For example, in languages like Russian, German, and English, the idea of evidentiality is expressed lexically, and is not obligatory, whereas it is a grammatically obligatory category in Turkic languages, to which Bashkir belongs (Kozintseva 1994).

In language contacts, the grammatical category of evidentiality is prone to attrition or functional interference with other verbal categories under influence of L2 with no obligatory evidentiality markers. For example, evidence suggests that in the Turkish language grammatical evidentiality is attrited both in early and late bilinguals under influence of German (Arslan et al. 2015) and English (Schmid, Karayayla 2020). In Quechua-Spanish bilinguals, the same patterns of attrition were reported for Quechua evidentiality, while Spanish aspectual forms were interpreted as evidential (Putnam, Sánchez 2013; Sanchez 2004).

Bashkir is a Turkic language with over one million speakers in Russia, most of whom also speak Russian. In Bashkir, evidentiality is an obligatory grammatical

category that expresses the presence of a source of information without specifying the type of source. Verb forms have a combined temporal and evidential meaning. Yuldashev (1981) contrasts three pairs of time forms on the basis of witnessing and non-witnessing of action: past definite — past indefinite (synthetic verb forms), pre-past definite — pre-past indefinite (analytical verb forms), past perfect definite — past perfect indefinite (analytical verb forms). The past definite tense is formed by adding the affix *-dy* (or its phonetic variants) to the root or to the word base, followed by truncated personal affixes: *ul kilde* (*he came*, past definite tense) and represents firsthand information. The past indefinite tense is formed by adding the affix *-gan* (or its phonetic variants): *ul kilgən* (*he came*, past indefinite tense) and represents non-firsthand information. Compared to the past definite tense, the past indefinite can be combined with modal words and particles that express doubt (*perhaps, maybe*).

Language attrition can depend on many factors, including the proportion of language use, or language dominance (Ecke 2004). In order to test the effect of L1 and L2 dominance on grammatical evidentiality in L1, we conducted a self-paced reading study in two groups of participants. We hypothesize that the Bashkir-dominant (BD) group would demonstrate lower reading times (RTs) in the verb region if the preceding context does not match the evidentiality form of the verb. On the other hand, we expect no such effect in the Russian-dominant (RD) group.

Methods

Participants

29 people participated in the study. All participants were born in Russia, had Bashkir as their native language and acquired Russian by the age of 6. The Russian-dominant group of participants consisted of 20 people (8 females, 12 males; age range: 18-36 y.o., mean age — 24.3) living in cities of Russia (Moscow, Chelyabinsk, Magnitogorsk) and reported using Russian for more than 70% of their time in daily communication. The nine Bashkir-dominant participants (8 females, 1 male; age range: 25-66 y.o.; mean age — 42,0) were recruited in a Bashkir-speaking village Rakhmetovo, Abzelilovsky District, Bashkortostan, Russia and reported more than 70% of daily communication in Bashkir.

Stimuli

We created 48 blocks of experimental stimuli. Every experimental item consisted of a context sentence, a target clause, and a final clause. We crossed two factors: context type (information about presence of the speaker at the scene) and tar-

get clause type (evidential type of the verb form). An example of an experimental block is presented in Table 1.

Table 1. Experimental block of stimuli

Condition	Context sentence	Target clause	Final clause
Match conditions			
Non-firsthand context — non-firsthand verb	Ильсур калаға кибеткә барзым тип мактанды. <i>Ilsur boasted that he had been to the town in a shop.</i>	Ильсур яңы телевизор алған (Verb-non-firsthand)	да, һәм әле телевизор карай. <i>and is watching it now</i>
Firsthand context — firsthand verb	Без Ильсур менән калаға кибеткә барзык. <i>Ilsur and I went to the town together.</i>	Ильсур яңы телевизор алды (Verb-firsthand)	ла, һәм әле телевизор карай. <i>and is watching it now</i>
Mismatch conditions			
Non-firsthand context – firsthand verb	Ильсур калаға кибеткә барзым тип мактанды. <i>Ilsur boasted that he had been to the town in a shop.</i>	Ильсур яңы телевизор алды (Verb-firsthand)	ла, һәм әле телевизор карай. <i>and is watching it now</i>
Firsthand context — non-firsthand verb	Без Ильсур менән калаға кибеткә барзык. <i>Ilsur and I went to the town together.</i>	Ильсур яңы телевизор алған (Verb-non-firsthand)	да, һәм әле телевизор карай. <i>and is watching it now</i>

All stimuli were translated from Russian into Bashkir by a native speaker, who is a specialist in Bashkir philology. For the BD group, minor changes (changing particles and several words) were made after checking the stimuli with a local speaker in Rakhmetovo. The stimuli were balanced across four experimental lists.

Procedure

The self-paced reading experiment was conducted in Linger (<https://web.archive.org/web/20191220181934/http://tedlab.mit.edu/~dr/Linger/>) for BD participants and 13 RD participants, and online in Ibx Farm (<https://adrummond.net/ibexfarm>) for 7 RD participants. The sentences appeared word by word in the center of the

screen. After each item grammaticality judgements were collected by the experimenter for the BD group and in the software for the RD group. Each participant from the BD group completed two sessions on different days.

Data analysis

The RT data were analyzed with linear mixed effect models with lme4 package in R (Bates et al. 2015). First, model logRTs were calculated based on log-transformed RT data with the following model: $\log RT \sim \text{Word.length} + (1|\text{participant})$. Then, residual logRTs for the region of interest (verb of the target clause and two consecutive words) were analyzed with the following model: $\text{Residual.log.RT} \sim \text{Verb.form} * \text{Context.type} + (1|\text{participant}) + (1|\text{item})$. The analysis was run separately for the two different groups. The resulting models were compared to null models (random effects only) with ANOVA.

Results

The RTs for the region of interest is presented in Figures 1 and 2. We found no significant differences between the resulting models and the null models for either participant group.

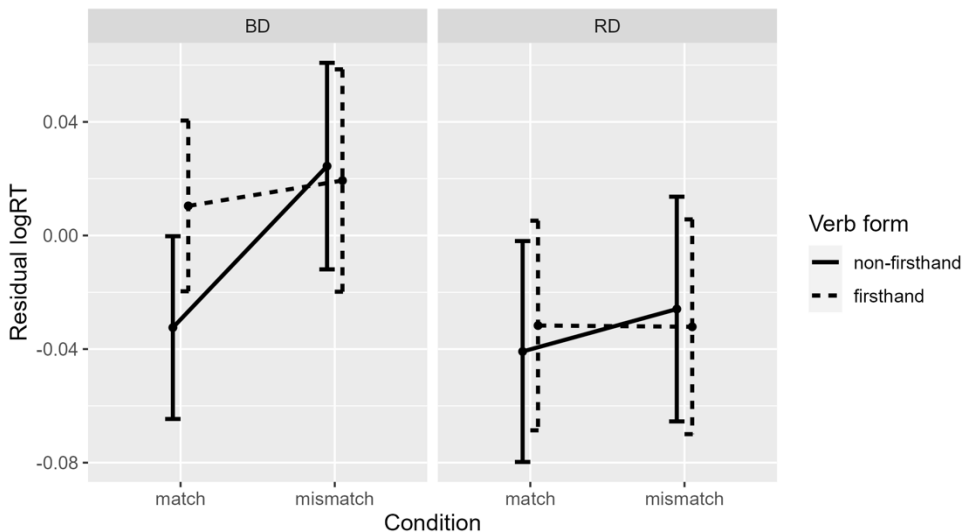


Figure 1. Residual log-transformed RTs

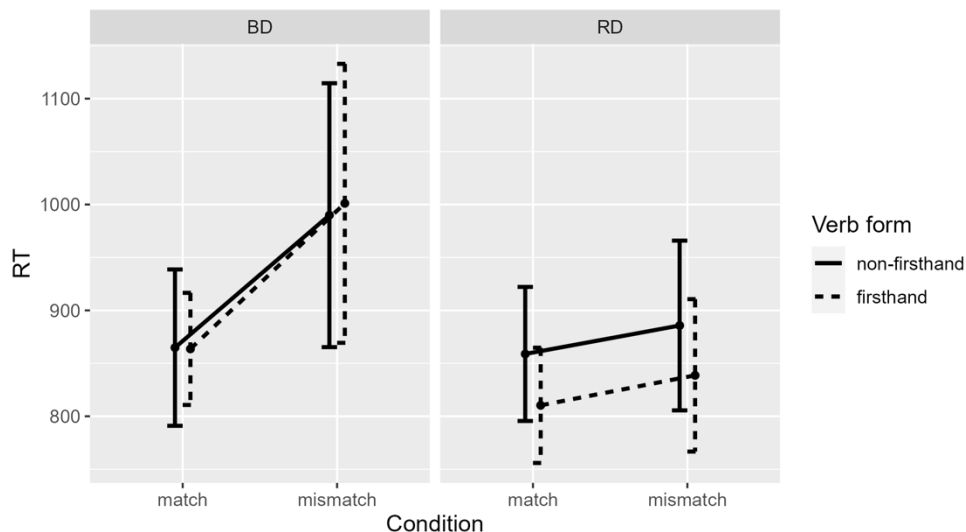


Figure 2. Raw RTs

Discussion

In our study, we expected to find different patterns of reading time in the BD and RD groups: we hypothesized that in the RD group we would find no differences between conditions due to the attrition of the evidentiality category, while in the BD group we expected to see slower RTs in the mismatch conditions due to reaction to grammatical violations. Although the visual inspection of the data seems to support the hypotheses (see Fig.1), the regression analysis did not reveal any fixed effects in the data from both groups. This result can be attributed to the limitations of the study design. First, we used the self-paced reading method that might be not sensitive enough to reveal the differences in the context-verb form compatibility violation, especially in the older participants from the BD group who are not accustomed to using a laptop for reading. Second, the RD group were in general slow readers, and demonstrated greater variability in reading speed (see Fig. 2), which might be the reason for the lack of any significant effects of the conditions. However, potentially, these results can be caused not only by the flaws of the experiment design, but also by the shifts in the language system which made the markedness of evidentiality non-obligatory. Although our study did not confirm our initial hypotheses, its results raise several important questions about experimental bilingualism research. First, methods should be adjusted to the populations who might be less experienced in reading and laptop use. Second, we must consider the possibility of the language change, especially in the bilingual communities.

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