

From privative to equipollent: Incipient changes in the aspectual system of heritage Russian

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1. Introduction

Heritage speakers, or early bilinguals whose primary language in adulthood differs from the language to which they were natively exposed in a family setting while growing up, represent a unique linguistic phenomenon of non-native-like attainment of an L1, which has generated much interest in recent theoretical and experimental linguistic work. Heritage grammars have been shown to diverge from the corresponding full-fledged baseline varieties in principled and systematic ways. Cross-linguistic investigations of a wide range of grammatical phenomena in heritage speakers of various proficiency levels have yielded generalizations about design features that may be common to all heritage languages, particularly in the realm of morphology and syntax, where numerous parallels among typologically distinct heritage languages have been documented (see Benmamoun, Montrul & Polinsky 2013). The common patterns of linguistic development in heritage languages are emerging as a source of new data for testing theories and informing our understanding of the foundational principles of language architecture and the mechanisms of its acquisition and development.

The domain of morphosyntax remains one of the most extensively researched areas of heritage language structure to date. Persistent problems with comprehension and production of complex morphology and syntax, manifested through simplification and loss of the corresponding forms and difficulties with their interpretation, have been observed in speakers of various heritage languages. Among the most extensively documented linguistic manifestations of incomplete attainment in the context of heritage language acquisition are changes in the inflectional systems of case, gender, agreement, verbal aspect and mood, and problems with classifiers and long-distance dependencies (Polinsky 1997, 2006, 2008; Montrul 2002; Montrul et al. 2008; Laleko 2010; Laleko & Polinsky 2013b). More generally, loss of morphosyntactic structures, along with lexical changes, has been argued to be a hallmark property of heritage languages (Bar-Shalom & Zaretsky 2008, 281). However, since existing research on heritage languages has predominantly focused on speakers at the lower end of the proficiency continuum, such generalizations may apply first and foremost to properties of heritage grammars represented by speakers whose comprehension

and production skills diverge considerably from the monolingual baseline. Following in the footsteps of creole studies, heritage language researchers repeatedly underscore a wide spectrum of linguistic abilities that heritage speakers may display in their heritage language, ranging from rudimentary receptive skills in low-proficiency (basilectal) speakers to native-like fluency in advanced (acrolectal) speakers (Silva-Corvalán 1994, Polinsky & Kagan 2007).

While it is clear from existing research that difficulties with morphosyntax in low-proficiency heritage speakers are abundant, more research is needed on speakers at the upper end of the proficiency spectrum, who until very recently remained outside of linguistic investigations, largely due to virtually error-free production and apparent lack of significant morphosyntactic deficits (see Laleko 2010 for a detailed discussion). However, recent studies have shown that high-proficiency heritage speakers may diverge from baseline speakers even in the absence of overt morphosyntactic errors, and that other domains of language organization, such as discourse-pragmatics, can be subject to incomplete attainment in heritage language acquisition (Laleko 2010; Laleko & Polinsky 2013a, 2013b, forthcoming; Dubinina & Laleko 2014). These findings are important because they enhance our understanding of heritage grammars as linguistic systems, despite variation within the proficiency continuum. Assuming Bickerton's (1977, 49) conception of a continuum as "a constant succession of restructurings of the original system," tracing the changes occurring in the grammars of heritage speakers of various proficiency levels may help us establish the directionality and mechanism of grammatical development along the heritage continuum. In doing so, it is essential to obtain and examine data not only from low-proficiency speakers, whose grammars may exhibit partial or complete loss of certain linguistic categories and sub-systems, but also from high-proficiency speakers, who may display only minimal deviations from the baseline. A closer look at the incipient changes taking place in advanced heritage grammars may help us attain a better understanding of heritage languages as linguistic systems.

Existing studies of aspect in heritage Russian (Polinsky 1997, 2009; Pereltsvaig 2005) have documented the loss of aspectual contrasts for low-proficiency speakers, who retain aspectual markers strictly on a verb-by-verb basis. At the same time, work by Bar-Shalom & Zaretsky (2008) points to the "preservation" of aspect in high-proficiency heritage speakers, manifested in the absence of overt aspectual errors in production, suggesting that the higher end of the proficiency continuum may be altogether spared from the restructuring of the aspectual system. These findings raise the following questions: First, assuming that grammatical changes in a heritage language continuum embody "a very gradual transmission in terms of surface forms between the two extremes" (Bickerton 1977, 49), how does the reorganization of the aspectual system pro-

ceed from a total lack of errors to a complete disappearance of aspect as a category? And second, does error-free production of aspectual markers signal target-like knowledge of aspect in high-proficiency speakers, or could advanced heritage grammars display signs of covert reorganization, not (yet) manifested in errors? Answers to these questions could be important for determining the mechanism, nature, and directionality of grammatical development in the context of heritage language acquisition across the sectors of the proficiency continuum.

This article discusses evidence to argue that the aspectual system in advanced heritage grammars is not fully target-like despite absence of production errors. Heritage speakers exhibit difficulty with aspectual interpretations mediated at the interface between syntax and discourse-pragmatics, namely those that involve pragmatically-conditioned uses of the imperfective aspect with total single events. As a result, heritage speakers do not resolve the aspectual competition between the imperfective and perfective aspectual forms in a target-like way. An emerging restriction on the use of the imperfective with completed events gives rise to a growing preference for the perfective aspect in these contexts as the system overall is undergoing a gradual shift from a *privative* aspectual opposition, where imperfective is the unmarked or underspecified member with a wide contextual distribution, to an opposition of an *equipollent* type, where both members are marked in a logically complementary way.

2. The Aspectual Opposition in Baseline Russian

The notion of binary oppositions, defined in terms of presence or absence of distinctive features, was initially developed by the Prague School linguists for discussing phonological contrasts, but has been subsequently extended to other domains of language study. In the literature on morphology and semantics, various linguistic phenomena have been analyzed with reference to the contrast between privative and equipollent oppositions, distinguished on the basis of markedness. Following a brief overview of the relevant terms, this section will discuss aspect in baseline Russian as a privative opposition, while the remaining sections of the article will examine the aspectual system of heritage Russian.

In a privative binary opposition, one of the members is marked for a certain property or feature, such as [+A], while the other member, which stands in the opposition to the marked member, is not marked for that property or feature. The feature in question may or may not be present in the second, unmarked, member, which carries no single feature specification. This property of the unmarked member can be represented as [\pm A] (no indication of A). Because the unmarked member has no pre-defined feature specification, its distribution is not

restricted with respect to that feature. Thus, the unmarked member is able to occur in [+A] contexts as well as in [-A] contexts, although, in the absence of contextual or pragmatic cues that specifically trigger [+A] interpretations, it is typically interpreted as [-A]. Privative markedness relationships are described by Jakobson as follows:

“[t]he general meaning of a marked category states the presence of a certain ... property A; the general meaning of the corresponding unmarked category states nothing about the presence of A, and is used chiefly, *but not exclusively*, to indicate the absence of A” (qtd. in Kučera 1980, italics added).

A pragmatic account of why the [-A] interpretation is preferred for the unmarked member of a privative opposition, despite the availability of [-A] and [+A] interpretations, can be derived via the Gricean maxim of Quantity. The speaker is assumed to offer as much information as necessary in order for the hearer to arrive at the intended interpretation with the least amount of effort. The hearer may thus infer that since the speaker did not use the member that is specifically marked as [+A], (s)he must have a [-A] interpretation in mind.

In an equipollent binary opposition, in contrast to a privative opposition, there is no unmarked member. Both members are marked in a way that makes them logically complementary: one carries a positive specification, such as [+A], while the other member is marked for the absence of the same feature, or [-A]. Each member may be seen as a mirror image of the other member, only displaying opposite characteristics; the two members cannot be used interchangeably due to different (i.e., opposite) semantic specifications.

To conclude this section and to anticipate the discussion below, we may summarize the difference between the two types of binary oppositions as follows: In a privative opposition, the [+A] interpretation of the unmarked member may be derived via cancellable pragmatic implicature, whereas the [+A] feature specification of the marked member is obtained via semantic entailment. In an equipollent opposition, both feature specifications, [+A] and [-A], are semantically entailed. In Section 3 below, experimental evidence will be discussed to argue that the privative aspectual opposition of baseline Russian, where the imperfective is the unmarked member, undergoes a process of restructuring into an equipollent opposition by way of reduction and loss of the pragmatically-determined functions of the imperfective aspect.

2.1 Russian Aspect as a Privative Opposition

Aspect in Russian (as well as other Slavic languages) is a grammatically salient category with an overt and obligatory morphological expression: every verb form, including non-finite forms, can be characterized as either perfective or

imperfective. The Slavic aspectual opposition, a grammatical manifestation of what has been termed ‘viewpoint aspect,’ represents two different ways of viewing situations. To reiterate the traditional distinction, a situation viewed perfectly is presented as if from the outside and as a completed whole, whereas a situation viewed imperfectively is ongoing, incomplete, or otherwise not distinctly bounded, presented as if from the inside (Comrie 1976, Bondarko 1995, Dahl 1985, Binnick 1991, Smith 1991, *inter alia*).

Characterization of Slavic aspect in Jakobsonian privative terms goes back to some of the earliest work in the aspectological literature, with the imperfective aspect analysed as the unmarked (or underspecified) member, i.e., one with a broader range of context-dependent functions (Forsyth 1970, Comrie 1976, Rassudova 1984, Chvany 1990, Binnick 1991, *inter alia*). It has become customary to define perfectivity on the basis of a positive value, such as terminativity (reaching of a boundary), while leaving the definition of the imperfective aspect open, e.g. by saying that it is “neutral” with respect to the feature for which the perfective is defined, such as the reaching of a boundary (see Leinonen 1982 and references therein). A brief survey of the definitions offered by various researchers for the perfective and imperfective aspects supports this observation. For instance, in Ferrell (1951) we find the following characterization of the perfective and imperfective aspects:

“[the perfective aspect is] characterized by completeness of revelation in respect to the predicate phrase, semelfactiveness of action in respect to the subject [and] by completion of the action prior to the inception of the action of another verb in the perfective aspect in the main clause... [while the imperfective is] uncharacterized in these respects” (p. 135).

Forsyth (1970) also provides the invariant definition for the perfective aspect, as a view of the event as a whole, but the definition for the imperfective aspect is stated in negative terms, i.e., as providing no statement about the event as a whole. In Merrill’s (1990, 315) terms, the unmarked imperfective aspect asserts only that the situation denoted by the predicate existed, while the marked perfective aspect is semantically more narrowly specified: it makes the assertion that the situation existed plus the assertion that it reached its terminus. For Rassudova (1984, 54-55), the imperfective is also more ambiguous than the perfective aspect: the latter “denotes an integral, single, demarcated action,” whereas the former “does not convey unambiguous information; it does not specify whether the action was completed or not completed,” and in disambiguating among various possible meanings, the relevant information comes from the context.

Three main meanings of the Russian imperfective are commonly distinguished: the *progressive* meaning (also known as ongoing, in-progress, or concrete-processual), the *habitual* (or indefinite-iterative) meaning, and the *general-*

factual meaning. The general-factual meaning of the imperfective is the key argument for the unmarked status of the imperfective aspect (see Dickey 2000), and the rest of the article will focus on this specific function of the imperfective. As the following section demonstrates, the ‘special’ status of the general-factual imperfective lies in its ability to stand in competition with the perfective aspect and occur in contexts where the perfective might otherwise be expected, such as in reference to completed events. Such contextual neutralization is exactly what we expect from the unmarked member of the aspectual opposition, and in what follows we take a closer look at the specific pragmatic conditions under which aspectual competition is resolved in favour of the imperfective in Russian.

2.2 Aspectual Competition

The perfective and imperfective aspects may both be used with completed events. This phenomenon represents aspectual competition, which arises when both aspectual forms are permitted by the grammar, albeit with different interpretational effects. While perfective gives rise to the entailment of completion, imperfective may (but does not need to) give rise to pragmatic inferences of completion, when used in appropriate contexts. Consider the predicates *chital knigu* ‘read a/the book’ (imperfective) and *prochital knigu* ‘read a/the book’ (perfective) in (1) below. While the imperfective verb in (1a) may be interpreted as referring to a completed or an incomplete event, the perfective verb in (1b) can only refer to a completed book-reading event. The two aspectual forms compete in the context where reference is made to a completed event.

- (1) a. Nikita včera čital knigu. (Ru)
 Nikita.nom yesterday read.imp.sg.m book.acc.f
 ‘Nikita read a/the book yesterday / Nikita was reading a/the book yesterday.’
- b. Nikita včera pročital knigu.
 Nikita.nom yesterday read.pfv.sg.m book.acc.f
 ‘Nikita read a/the book yesterday.’

In a situation of aspectual competition, both aspectual options are available, and the preference for one aspect over the other is a pragmatic choice that derives largely from the speaker’s intentions, goals, and the overall context of the utterance. In other words, while both aspectual forms are grammatically acceptable, the “free choice” of aspect disappears at the discourse level if contextual conditions make only one choice felicitous relative to the pragmatic situation at hand. For instance, in order to assert that a book-reading event took place, the speaker would use the imperfective form in (1a), even if he or she knows for a fact that the event was completed. However, in order to convey the

message that the book-reading event was completed, the perfective form would need to be used instead, as in (1b).

Several distinct meanings have been identified in the literature as falling within the spectrum of the general-factual imperfective (Forsyth 1970, Leinonen 1982, Chvany 1985, Smith 1991, Padučeva 1996). The *statement of fact* imperfective, which signals a declaration that the action denoted by the predicate did occur, such as in the non-progressing reading of (1a) above, is perhaps the most frequently described function of the imperfective with completed events. Additional functions include use of the imperfective to designate actions with results that have subsequently been reversed (the so-called *annulled* or *reversed result* imperfective, illustrated in (2) below), and to mark the verb as a thematic element in the utterance when the focus is located elsewhere (the so-called *backgrounding* function of the imperfective, exemplified in (3) below).

- (2) Kto otkryval korobku? (Ru)
 who.nom opened.imp.sg.m box.acc.f
 ‘Who opened the box (*which has subsequently been closed*)?’
- (3) Gde vy pokupali eto pal’to?
 where you.nom.pl bought.imp.pl this.acc.n coat.acc.n
 ‘Where did you buy this coat?’

Under the reversed action reading, use of the imperfective form *otkryval* ‘opened’ in (2) signals that the box had been opened at some point, but then subsequently closed again at a later point in time. The imperfective form *pokupali* ‘bought’ in (3) contributes to a particular information-structural partition of the sentence: the question is not about whether or not the act of buying the coat was completed, but about where it took place; the act itself is presented as old information, something that is presupposed rather than asserted.

3. Aspect in Heritage Russian

Early studies that examined aspect in heritage Russian reported loss of the perfective-imperfective opposition in basilectal grammars. For low-proficiency heritage speakers, distinctions between two aspectual forms of the verb are no longer obtained, and verbs are retained in single and invariable aspectual forms (Polinsky 1997, 2006, 2009; Pereltsvaig 2005). Researchers observed a link between the aspectual form in which a given verb is preserved and its lexical class: the perfective form is favoured with verbs of achievement and accomplishment, characterized by the presence of a natural limit or endpoint in the verb’s lexical entry (the so-called *telic* verbs in Vendler’s (1957) classification), while *atelic*

verbs, those without the natural endpoint or transition, including processes and states, are lexicalized as imperfective (Polinsky 1997; Pereltsvaig 2005)¹. Besides telicity, various explanations for the retention of one form over another have been put forward, including input frequency and dominant language influence (Polinsky 2009). Whatever factors may be involved in lexicalization of aspect for speakers at the lower end of the proficiency spectrum, the end result of this process appears to be the disintegration of the aspectual system and replacement of binary oppositions with single-valued forms.

Research on grammars of intermediate- and high-proficiency heritage speakers of Russian suggests that some parts of the baseline aspectual system are retained in these populations. For example, Laleko (2008, 2011) demonstrated that contextual linguistic information located outside the verb, such as the presence or absence of verbal arguments, triggers variation in the choice of viewpoint aspect markers for heritage Russian speakers. It thus appears that non-basilectal speakers maintain a binary aspectual opposition, which nevertheless differs from the binary opposition represented in the baseline system. For monolingual Russian-speaking controls, the occurrence of the imperfective aspect is not restricted to atelic contexts: imperfective forms also occur with telic predicates in a variety of progressive, habitual, and general-factual contexts. However, heritage speakers exhibit restrictions on the use of the imperfective with complete events and produce significantly more perfective forms than monolingual speakers in reference to total single events (Laleko 2008, 2010).

An emerging constraint on the occurrence of the imperfective with complete events suggests that some of its functions may be reduced or lost in grammars of advanced heritage speakers. One possibility is that contextually-determined uses of the imperfective, i.e., those involving discourse-pragmatic knowledge, represent a vulnerable domain (cf. Sorace & Serratrice 2009) and are therefore associated with greater difficulty and developmental instability. The following section discusses data from an acceptability ratings experiment designed to examine the knowledge of the general-factual imperfective in advanced heritage Russian speakers. The results point to a growing preference for the perfective aspect in contexts where the general-factual imperfective would have occurred in baseline Russian. Without aspectual competition, the aspectual opposition in heritage Russian can no longer be analysed as privative; instead, it is undergoing a shift towards an equipollent opposition, where the two aspects are marked in opposite ways with respect to completion.

1 Meaning combinations characterized by mismatches between lexical and grammatical aspect have been shown to be problematic in other heritage languages (Silva-Corvalán 1994; Montrul 2002; but see Jia & Bayley 2008).

3.1 Loss of the General-Factual Imperfective in Heritage Russian

This section discusses an experimental task aimed at examining the knowledge of the general-factual imperfective in advanced heritage Russian grammars.

Participants. Nineteen heritage speakers participated in the study (mean age = 21, mean age of arrival to the US = 4.49, mean length of time of residence in the US = 16.45). The control group of native speakers consisted of 24 adults, who completed the test in Russia and reported using Russian exclusively for all daily communication (mean age = 35). All heritage speakers in the present study can be described as high-proficiency speakers on the basis of production data, collected from each participant for a separate experiment. Only speakers whose production in Russian did not exhibit overt deviations from the baseline variety on grammatical variables were included in the study.

Methodology. All participants completed an acceptability rating task, during which they were presented with a set of short descriptions of situations in Russian and asked to rate two verb forms (perfective and imperfective) relative to the context of the situation described. The verb forms were given next to the blank space in the last sentence of the description. Both aspectual forms were grammatically acceptable within the sentence; however, the imperfective form represented the more felicitous choice in the overall context of the situation described. An example test sentence is given in (4) below, presented in the following context: “My friend speaks a little Russian and really loves Russian literature. He has recently finished *Crime and Punishment* by Dostoevsky.”

- (4) A kak on ___ etu knigu, po-anglijski ili po-russki? (Ru)
 and how he.nom this.acc book.acc in English or in Russian
 ‘How did he ___ the book, in English or in Russian?’

Two aspectual forms of the verb ‘read’ appeared next to the blank, *čital* and *pročital*. The participants were asked to rate each candidate verb (N=20) relative to the context, using a four-point scale. The experiment was specifically designed to target the general-factual imperfective aspect with completed events; thus, each situation involved a completed event, clearly identified as such, but included contextual information that would favor the use of the imperfective form over the perfective form. For instance, in (4) above, the book has been finished, but the imperfective form *čital* is contextually favored over the perfective *pročital* for pragmatic reasons (i.e., the verb is the thematic element in the sentence). Filler items favoring the perfective forms were included for balance.

Predictions. A significant preference for the imperfective form is expected on each experimental item in the monolingual control group because the context

of each description is available to resolve aspectual competition unambiguously in favour of the imperfective aspect. The predictions for the group of heritage speakers can be formulated as follows: if the speakers retain the general-factual imperfective, their ratings should resemble those in the control group; however, if they no longer resolve aspectual competition in favour of the imperfective in general-factual contexts, we predict no significant preference for the imperfective aspectual forms over the perfective forms in the heritage group.

Results. Figure 1 below represents mean ratings for two groups of speakers on a four-point scale, from 0 points to 3 points (where 0 corresponds to “unacceptable,” 1 to “awkward,” 2 to “okay,” and 3 to “perfect”). As expected, Russian speakers in the control group ranked imperfective forms significantly higher (mean = 2.60) than heritage speakers (mean = 2.24), according to the results of a paired one-tailed t-test that revealed the p -value < 0.001 . Conversely, perfective forms were ranked significantly lower by speakers in the control group (mean = 1.37) than by speakers in the heritage group (mean = 2.03), with the significance value of $p < 0.0001$.

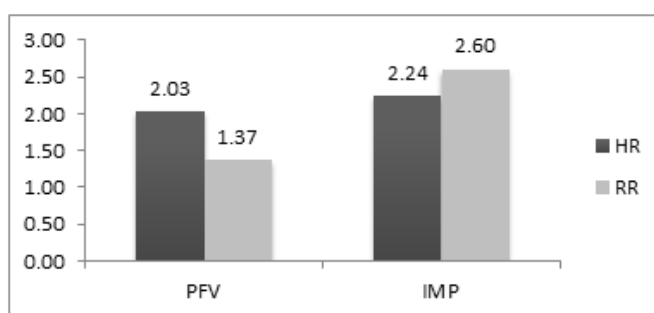


Fig. 1: Mean ratings for perfective (PFV) and imperfective (IMP) forms in the data from heritage Russian speakers (HR) and baseline Russian speakers (RR)

Within-group comparisons provide additional support to the hypothesis that heritage speakers exhibit non-targetlike knowledge of the general-factual imperfective. A one-tailed paired t-test performed with mean perfective and imperfective ratings for each test item reveals a very statistically significant preference for imperfective forms over perfective forms in the control group, at p -value < 0.001 . In contrast, the same statistical test suggests that heritage speakers tend to treat perfective and imperfective forms uniformly despite the ‘imperfectivizing’ context provided in the description. The difference between mean perfective ratings and mean imperfective ratings is not statistically significant ($p > 0.3$).

Discussion. Heritage Russian speakers exhibit a significant decline in acceptability of the general-factual imperfective with completed events. At the same time, they rate the perfective forms significantly higher than monolingual

controls in contexts that call for the general-factual imperfective. It appears that in associating the imperfective aspectual value with meanings that are under-generalized, compared to the baseline variety, acrolectal heritage speakers are not able to rely on discourse-pragmatic cues in order to resolve the aspectual competition in a target-like way. Difficulty with evaluating forms that require context may point to instability or lack of availability of the relevant mapping principles at the interface between morpho-syntax and discourse-pragmatics.

4. Summary and Conclusion

This article discussed some features of the aspectual system instantiated in acrolectal varieties of heritage Russian and provided evidence to show that heritage speakers of high proficiency levels, despite absence of errors in production, exhibit differences from baseline speakers in their knowledge of aspect. In baseline Russian, the imperfective aspect allows for a wider range of meanings than the perfective aspect: while the latter is associated primarily with the notion of completion or temporal delimitation, the former can be used in reference to completed as well as incomplete events. Instead of a single invariant meaning, the imperfective aspect yields a range of meanings determined by contextual and pragmatic cues. Thus, the imperfective aspect in baseline Russian is traditionally analyzed as an unmarked (underspecified) member of a privative aspectual opposition, which in certain contexts may take on some properties of the marked member, the perfective aspect, such as in reference to single total events.

High-proficiency heritage speakers were shown to under-rate imperfective forms and over-rate perfective forms, as compared to monolingual controls, in contexts that called for the imperfective form for pragmatic reasons. Loss of the general-factual imperfective characterizes aspectual restructuring in heritage Russian as one involving a systemic shift in the oppositional relationship between the perfective and imperfective aspects. In treating aspect as an equipollent, rather than privative, opposition, heritage Russian speakers adhere to a one-to-one form-to-meaning principle, thus reorganizing the aspectual system into a logically complementary dichotomy with two opposing single-valued features.

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