

Seeing events in a second a language: A cognitive “accent” in event perception

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How do the languages we speak shape the way we construe and perceive events? We consider event perception in bilinguals and ask what role linguistic habits in your first language play in how you construe events in a second language. We focus on grammatical aspect, and compare Russian-English bilinguals (tested in English) with English monolinguals.

Aspect is obligatorily marked in Russian. To say “he ate cereal,” Russian speakers must choose either a perfective form of “ate” (*s’ye/*, *doye/*) indicating a completed action, or an imperfective form (*ye/*, *po/ye/*, *nedoye/*) to indicate an event in progress or an incomplete event (1). Unlike the English “ate,” there is no grammatical form available in Russian that could apply both for a complete and an incomplete event. While completion information can be supplied in English in a variety of other ways, this is not obligatory. Does this difference between the languages lead to differences in the cognitive habits of Russian and English speakers?

Prior work has shown that differences in aspect marking between languages indeed predict differences in how people construe events (2). Further, bilinguals’ event similarity judgments reveal influences from their second language when tested in their native language (3, 4). In this paper we ask about attentional patterns that might persevere as bilinguals shift from a language that makes more obligatory distinctions to one that has fewer. That is, do bilinguals construe events with a cognitive accent imparted by the requirements of their first language?

In Study 1 we ask: when Russian-English bilinguals speak English, do they include additional information about completion (over and above what is included by monolingual English speakers)? In Study 2 we ask: when making non-linguistic judgments about events, do Russian-English bilinguals attend more to completion than do monolingual English speakers?

Study 1: 43 English monolinguals (18 males; Mage = 32.56 yrs; SD = 8.55) and 38 Russian-English bilinguals (11 males; Mage = 32.97 yrs, SD = 8.41) participated. Each participant viewed 12 events (six complete, six incomplete), with each event depicted by two photos shown sequentially. An example event showed a man eating cereal in image 1, then the same man talking on the phone with the cereal bowl sitting on the table in image 2. The complete version of this event showed an empty cereal bowl in image 2. In the incomplete version, there was some cereal still left in the bowl, as if the man had been interrupted by the phone call. Each participant saw either the complete or the incomplete version of each event.

After seeing the two images, participants were given a sentence frame (e.g., Yesterday, he _____ cereal) and a verb (e.g., “TO EAT”) and were asked to fill in the blank using the verb to provide a good description of the event. The blank was left long to allow for (and invite) elaborated descriptions, and participants were explicitly instructed that they were welcome to include additional words. Each response was coded as either providing explicit (in)completion information (e.g., *he ate all of the cereal*; *he ate some cereal*) or not (e.g., *he ate cereal*).

English monolinguals used simple past tense to describe both complete and incomplete events on more than 75% of the trials. Russian-English bilinguals provided more (in)completion information than English monolinguals for incomplete events, as revealed by a significant interaction in a 2x2 (group x event type) ANOVA, $F(1, 79) = 4.406$, $p = .039$. Of the bilinguals, 23 were sequential bilinguals with Russian as their first language. This set provided more (in)completion information than English monolinguals for both complete and incomplete events, $F(1, 64) = 12.239$, $p = .001$ (see Fig. 1). For incomplete events, these bilinguals included (in)completion information (48.7%) nearly twice as often as English monolinguals (24.57%).

Study 2: A new set of 33 English monolinguals (23 males; Mage = 32.27 yrs, SD = 8.53) and 34 Russian-English bilinguals (8 males; Mage = 35.03 yrs, SD = 11.80) participated. On each trial, participants saw a reference event and two comparison events. Their job was to decide which

of the two comparison events was most similar to the reference event. In an example trial, the reference event might show the complete version of a man eating cereal. One comparison would show the incomplete version of the same man drawing a tree (an agent match). The other comparison event would show the complete version of a different man cleaning the table (a completion match). The events were shown entirely in pictures, and participants clicked on their choice, making non-verbal responses. Participants were never asked to describe the events.

As predicted, Russian-English bilinguals selected the completion match much more frequently (65.15%) than monolingual English speakers (25%), $F(1, 65) = 24.978$, $p < .001$ (see Figure 2). Performance was consistent for both sequential and simultaneous bilinguals.

Discussion: These findings suggest that Russian-English bilinguals differ from English monolinguals in both how they describe and perceive past events. Despite completing the event description task in English, individuals with experience speaking Russian voluntarily provided additional information about completion (particularly when viewing incomplete actions) over and above what was provided by English monolinguals. The bilinguals were also more sensitive to completion information in a non-linguistic task. While English monolinguals preferred to match events based on who was completing the action, Russian-English bilinguals matched events based on degree of completion. To them, completion information was more salient, even in a non-linguistic task (with instructions provided in English). It appears that experience with obligatory grammatical aspect in the bilinguals' native Russian manifests in both a semantic accent (5) in a productive language task and a cognitive accent (6) in a non-linguistic task.

Figure 1

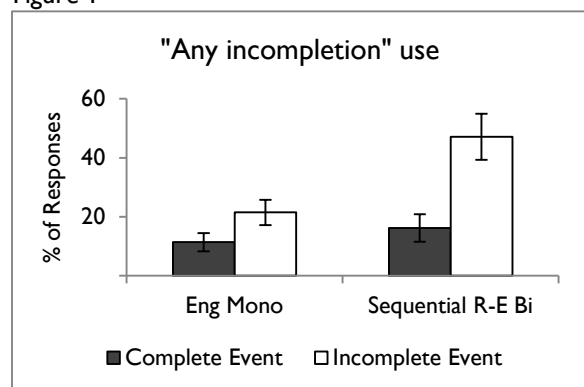
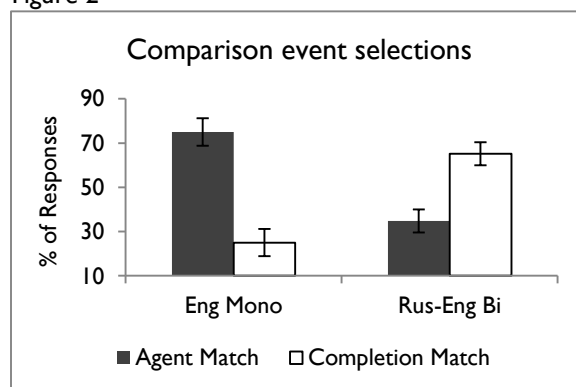


Figure 2



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