Interpreting Contrastive Constituents in Russian by Monolingual and Bilingual Speakers

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Russian allows for considerable flexibility of word order including the so-called *split constituents* in which the preverbal adjective modifies the postverbal noun, as in (1). This unusual word-order choice communicates referential contrast when it is combined with an appropriate contextual setting and prosodic stress.

(1) *Krasnuju* *položite* *zvezdočku* *v Poziciju 4*
red-ACC put star-ACC in Position 4
'Put the red star in Position 4.'

In two eyetracking experiments, we explored a strong real-time-interpretation hypothesis, namely, that Russian monolingual and bilingual listeners will compute the referential and pragmatic implications of this noncanonical word order as soon as it is detected, i.e., prior to hearing the head noun (*zvezdočku,* star). Participants heard instructions containing split constituents (1) while viewing scenes for which the adjective would be referentially ambiguous (e.g., a red star and a red bird). In 2-Contrast condition, both red objects could be referred to contrastively (there was a red star as well as a blue star, and a red bird as well as a yellow bird). In 1-Contrast condition, only one of the red objects could be referred to contrastively (a red star and a blue star, but the only other red object was a bird and there was no other bird present).

The first experiment confirmed the strong real-time-interpretation hypothesis. In 2-Contrast condition (Fig. 1A), 24 monolingual Russian listeners looked equally often at the two red objects until hearing the noun 'star', which followed the verb. But in 1-Contrast condition (Fig. 1B), upon hearing *krasnuju položite …* 'red put … ', they preferred to look to a red object (the red star) that could be contrasted with an object of the same type but of a different color. This occurred very early during the utterance, before the head noun itself had been heard. Thus, contrast sets were computed during the course of understanding an utterance with split constituents, and that this process was incremental and sensitive to pragmatic considerations.

In the second experiment, we compared Russian-English bilinguals' ability to interpret referential expressions contrastively with that of monolingual Russian listeners. Here, however, the strong real-time-interpretation hypothesis was not confirmed. Thirty-two bilingual Russian listeners looked equally often at the two red objects not only during the referentially ambiguous portion 'red put…' but well after the disambiguated noun 'star' was encountered. The time course analysis revealed than in contrast to monolinguals, bilinguals' selection of the pragmatically appropriate referent was very slow to emerge. Moreover, it took the bilingual listeners twice as much time to identify the two red objects in the visual context and complete the experimental task. These results suggest that bilingual spoken language processing fails to equal monolingual: Russian-English bilinguals lose the ability to rapidly compute referential and pragmatic implications of noncanonical word order in Russian once the switch in language dominance from L1 (Russian) to L2 (English) is under way or completed.

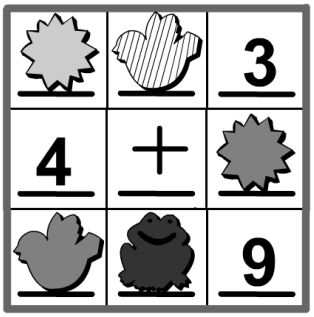

Fig. 1A. 2-Contrast condition

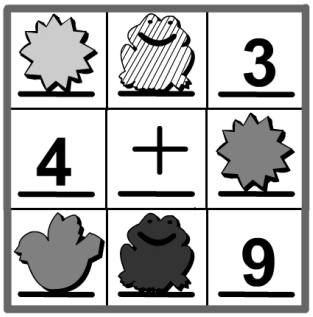

Fig. 1B. 1-Contrast condition

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