Case syncretism in processing: evidence from Russian

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I am going to present an overview of several experimental studies on case processing in Russian that I conducted with my coauthors. The unifying topic for these studies is case syncretism. I will show that intraparadigmatic and transparadigmatic syncretism of case affixes affects production and processing, and often not in the way that could be easily predicted by theoretical approaches to case syncretism or by psycholinguistic models.

The first series of experiments focuses on the phenomenon of agreement attraction. It was noted that in English, errors like (1a) are produced more often and missed more easily than errors like (1b) — presumably, because the dependent noun in (1a) (termed attractor) disrupts the agreement between the verb and the head of the subject noun phrase. Subsequent studies on languages with morphological case demonstrated that case syncretism plays a role in attraction. In particular, we showed for the first time that not only systematic, but also accidental syncretism affects production and processing (although there are some interesting differences between the two) and that both attractor and head syncretism are important for processing. In the second series of experiments, we demonstrated that case syncretism in adjective forms creates similar problems for the production and processing of case on the nouns modified by them.

- (1) a. *The key to the cabinets are rusty.
 - b. *The key to the cabinet are rusty.

The third series of experiments studies case error processing. We demonstrated that transparadigmatic syncretism of case affixes interferes with error detection. This can be taken as a strong argument for morphological decomposition and a very independent status of inflectional affixes in the mental lexicon. Moreover, it has been shown before how syncretic affixes can mask ungrammaticallity effects, but only for the syncretism *inside* one paradigm. Similar effects across paradigms have not been previously reported.

The fourth series of experiments explores the role of transparadigmatic syncretism in gender agreement. Russian has a group of nouns denoting professions and social roles that used to be masculine, but can now be used both with masculine and with feminine agreement. However, feminine agreement is only marginally acceptable in all cases except for nominative and, as our experiments show, is especially degraded in locative. I will argue that transparadigmatic syncretism defines this pattern. Notably, this is the only reported example when syncretism creates inhibitory, rather than facilitatory effects in processing. In total, the results of the experiments are interesting both for theoretical morphology and for psycholinguistic processing models.