Explaining morphological change:
Productivity, competition, and the contents of the grammar

Vsevolod Kapatsinski
University of Oregon

Usage-based linguistics aims to explain why languages are the way they are by explaining the pathways or processes of diachronic change. In this talk, I focus on changes in the productivity of morphological generalizations and morphologically-conditioned phonology. First, I demonstrate that phonological alternations can lose productivity despite having no exceptions in the lexicon (Kapatsinski, 2010). This happens when the triggering morpheme attaches to a phonologically diverse set of bases, only some of which are eligible to undergo the alternation. The greater the proportion of bases that do not alternate, the greater the chance that an alternating base will stop alternating. These results suggest that the mental grammar is not a tidy deterministic system in which generalizations are either productive or not, but a pandemonium of competing generalizations of varying productivity, where competition is rife, and is resolved stochastically (Kapatsinski, 2018a, 2018b).

Second, I report on a series of studies showing that alternations leading to the same output can help each other's productivity (Kapatsinski, 2013, 2017). This helps explain the diachronic emergence of templatic morphology, the pathway from subtraction to truncation, and the process of affix fusion. It also provides evidence for the existence of product-oriented schemas, or constructions, in the synchronic morphological grammar. Still, recent data show that product-oriented schemas are insufficient to explain a speaker's acquisition and productive use of morphology (Kapatsinski, 2017, 2018a; Smolek & Kapatsinski, in revision). They must be complemented by paradigmatic mappings linking together forms inhabiting different cells in a morphological paradigm. Recent research in my laboratory investigates how paradigmatic mappings are learned, and the ways in which they interact with product-oriented schemas (Smolek & Kapatsinski, in revision). The co-existence between product-oriented schemas and paradigmatic mappings in the mental grammar raises new questions about the ways in which they interact in morphological systems.

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