A realization OT approach to affix order

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Affix order in inflection depends on three factors: scope, phonology, and templates. We will argue for the advantages of an inferential-realizational model of inflectional morphology within Optimality Theory (OT) over other morphological frameworks in accounting for affix order, because such a model accommodates the interplay of all these factors. In this model the phonological information of inflectional material is realized through realization constraints (RCs) that associate morphosyntactic feature values with phonological forms.

We illustrate the model with Lezgian data (Haspelmath 1993). In Lezgian, case markers fall outside number markers. Locative markers which scope over localization markers are farther away from the nominal stem. The past tense marker is outside tense-aspect markers. Participles which express relative clauses are outside temporal-aspectual affixes. The negative marker in the indicative environment occurs between past-tense and tense-aspect markers. Additionally, the past tense suffix *-ir* does not appear in an affirmative context or follow tense-aspect markers, which always end in a vowel. We show that these orderings can be expressed by universal scopal and phonological constraints combined with language-particular realization and templatic constraints and that Lezgian is a "mixed Scope-Template system" (cf. Paster 2005).

Paradigm Function Morphology (PFM) (Stump 2001) uses rule blocks to order affixes. One shortcoming of this approach is that simply labeling each rule block with a number misses scope generalizations. In response to this problem, Spencer (2003) imposed a general scope condition on rule blocks. But the order of rule blocks is also often partially determined on a language-particular templatic basis (Hyman 2003) and it is not clear how the scope constraint interacts with the templatic constraint in PFM which usually overrides it. The interaction of the two constraint types points toward a realization OT approach.

Within Distributed Morphology (DM), which revels in every case of syntaxmorphology interpenetration, the scope generalization is derived from syntactic structure. Compared to DM, a realization OT approach accommodates directly not only universal generalizations about scope effects, but also phonotactics, without cyclic derivation of a morphological structure. The realization OT approach also expresses scope generalizations more readily than a framework based on the generation of output morphosyntactic feature values (Grimshaw 1997, 2001, Wunderlich 2001), which does not treat realization directly, because it lacks a systematic mechanism to spell out abstract feature values as phonological forms. By contrast, a morphologically restricted OT model (McCarthy and Prince 1993, McCarthy and Prince 1995) relies solely on morphological information such as "affix", "root", and "stem", and phonological information. It is hard to see how to incorporate into this model the scope constraint, which crucially relies on morphosyntactic feature values.

In short, only a theory that recognizes the interplay of scope, phonology, and templatic constraints, both universal and language-particular, can account for the range of affix ordering that is found even in comparatively simple systems like that of Lezgian. Realization OT is such a theory.