## Suffixing Preferences: Psycholinguistic Effects on Historical Change?

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It has been known that suffixes are more common than prefixes cross-linguistically (Dryer & Haspelmath, 2011), and a number of accounts have been proposed, including psycholinguistic, historical, and formal accounts. Psycholinguistic accounts (Cutler et al. 1985, among others) are based on the idea that prefixes have some disadvantages over suffixes in language processing. There is, however, a weakness shared by psycholinguistic approaches: they only predict the general preference for suffixing and cannot account for the fact that the strength of suffixing preferences widely varies depending on grammatical categories. For example, while case marking shows strong suffixing preferences, person marking shows no evidence of suffixing preferences.

This study examines the possibility that a combination of a general psycholinguistic preference and historical origins can explain the current distributions of affixes. An illustrative example is discussed in Dryer (2011) for negation morphemes. In syntax, a negation morpheme more often precedes the verb than follows it, presumably because a negation morpheme that follows its scope causes a semantic garden path effect. In morphology, on the other hand, there are about the equal number of negation prefixes and suffixes. This can be readily explained if we assume that morphological negation markers come into being through the morphologization of syntactic negation words, but because of an independent psycholinguistic factor, preposed negation words are more often prevented from being morphologized. The historical and psycholinguistic factors cancel out each other and about the equal number of prefixes and suffixes results. This study is an attempt to pursue this approach in a more systematic way.

This study compared the typological frequencies of corresponding syntactic and morphological grammatical morphemes for each grammatical category, based on the literature on grammaticalization and the typological databases including Dryer and Haspelmath (2011). For example, it has been argued that gender markers typically evolve from demonstratives via the stage of definiteness markers (Greenberg, 1978). There are about the equal number of preposed and postposed demonstratives and definiteness markers; as expected, we observe suffixing preferences in gender markers in morphology.

Overall, our results confirmed that (i) there is a correlation between syntax and morphology, and that (ii) on top of that, the distribution is skewed towards postposing in morphology, as in Figure 1. Some grammatical categories, however, are outliers: object agreement markers are preposed more often than expected; case markers are postposed more often than expected.



Figure 1: Ratio of preposed elements in syntax and morphology

We compare our results with accounts that do not resort to a general psycholinguistic preference such as Givón (1979), and discuss how predictions diverge.

## References

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