

On system pressure competing with economic motivation

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Linguists have long noted that languages structures provide massive evidence for a least-effort principle, and that this is counteracted by the speaker's desire to make herself understood by the hearer. Thus, Gabelentz's *Bequemlichkeit* (laziness, ease of production) and *Deutlichkeit* (clarity, ease of perception) are engaged in a constant tug of war, with no winner. When there are systematic frequency differences between functionally similar and contrasting elements, this situation gives rise to systematic formal asymmetries: The frequent elements tend to be expressed in a shorter way (or by zero), while the rare elements tend to be expressed in a longer way (these are the classical economy effects). This was recognized for grammatical patterns by Greenberg (1966) and much subsequent work (e.g. Croft 2003, Haspelmath 2008a). For example, plurals are longer than singulars (which are generally zero), alienable possession is coded in a longer way than inalienable possession (which is mostly zero-coded), and direct-object reflexives tend to be longer than possessive reflexives (Haspelmath 2008b). The reason is that plurals are generally rarer than singulars, alienables are more rarely possessed than inalienables, and direct objects are more rarely reflexive than possessives.

However, what frequencies are relevant? If we look at the frequencies of individual items, then we often find exceptions: Plural-prominent nouns such as 'arm', 'tooth' and 'tear' tend to be more frequent in the plural (cf. Tiersma 1982), but still the plural forms are longer in many languages. (Not in all languages, of course: Welsh, for instance, has longer singulars in many such nouns, e.g. *pluen* 'feather', *plu* 'feathers'.) The explanation for this is **system pressure**: Plurals of plural-prominent nouns behave like plurals of singular-prominent nouns on the analogy with the latter -- more nouns are singular-prominent, and their higher type frequency leads the plural-prominent nouns to follow their pattern.

Thus, processing-based motivating factors such as *Bequemlichkeit* and *Deutlichkeit* are not sufficient to explain the actual patterns of languages. In addition to processing optimization, a kind of system optimization must also play an important role in shaping grammars. This was recognized by the Neogrammarians for the interaction of phonology and morphology (where the competition of *Lautgesetz* with *Analogie* was seen as crucial), and it was recognized by OT theorists, who supplemented FAITHFULNESS (i.e. clarity) and MARKEDNESS (i.e. laziness) with OUTPUT-OUTPUT CORRESPONDENCE to account for paradigm uniformity effects. In this talk, I focus on the role of system pressure in explaining the limits of economy-based explanations.

References

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