

## **Sociolinguistics meets Exemplar Theory: frequency and recency effects in (ing).**

With the growing role of phonological usage-based theories such as Exemplar Theory (Pierrehumbert 2001a, 2001b; Bybee 2000), word frequency is becoming recognized as part of linguistic competence. It has been shown to affect t/d deletion (Bybee 2000), and play a role in processes of language change (Phillips 1984, Kiparsky 1995). However, sociolinguistic evidence in support of word frequency as a major independent variable is somewhat shaky, and incomplete at best. Labov (2003) found word frequency not to be a significant factor in (uw) fronting in Philadelphia, and Dinkin (2004) discovered no consistent frequency effects in short vowels in the Telsur project (Labov, Ash and Boberg 2006). In this paper I explore the role of word frequency in the stable variable sociolinguists know the most about: (ing). Following Labov and Dinkin, and against Exemplar Theory, I argue that frequency is not a significant factor in this variable, and should not be granted special status until the evidence shows otherwise. At the same time, however, the theory provides us with a neat way of handling recency/priming effects observed in the data.

The data consist of over 700 interview tokens from a year-long speech community study in a lower middle class neighborhood of Philadelphia. The data – unstressed tokens only – were coded for most variables typically affecting the apical/velar alternation in (ing): style (casual, narrative, etc.), grammatical status (progressive, participle, etc.), following segment (apical, velar, etc.). They were kept in the analysis as sanity checks, and indeed all effects (ing) is known for, stylistic and grammatical (the so called Verbal-Nominal continuum, cf. Houston 1985) were clearly observed. Frequency has been coded twofold: within the corpus, and against the Brown Corpus.

The data were subjected to multivariate analysis using Varbrul. All factor groups listed above were included, as well as a rather uncommon factor group called Previous Token to approximate recency/priming effects that should be paramount giving the central tenets of Exemplar Theory (but see also sociolinguistic studies showing these effects, eg. Scherre and Naro 1991, 1992). Specifically, if token *n* was velar, then by null

hypothesis token  $n+1$  is also predicted to be such. Frequency – neither within corpus, nor as taken from the Brown Corpus – has not been selected by Varbrul as a significant factor, and further statistical analysis reveals that frequency interacts with grammatical conditioning, being in effect its reflex. However, identity of a previous token with respect to the variant is a significant factor, in fact stronger than all other factor groups. While easily explained from a psycholinguistic point of view using e.g. the concept of resting activation levels (Goldinger 1996), this is nonetheless accounted for by usage-based phonological theories.

This paper examines a well-studied stable sociolinguistic variable to confront claims made by an increasingly prominent line of phonological theorizing. Contra Exemplar Theory, frequency – as modeled here – is not a significant independent variable, but variant of a previous token is, indicating that usage-based thinking is on the spot, and should be subject to empirical examination by sociolinguists in the future.

## References

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