

The Development of *do*-Support with Negative Possessive *have* in the History of American English

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This paper has an empirical and a theoretical objective. In the empirical part, I discuss the recent (in fact, ongoing) rise of *do*-support with negative possessive *have* in American English. The relevant variation is exemplified in (1), where the first sentence shows the conservative variant directly negating *have* while the second sentence illustrates the innovative variant with *do*-support.

- (1) a. Add the salt and pepper fixings, and the king himself **hasn't a slicker supper**.
(Hoffman, C. F. *Greyslaer: A Romance of the Mohawk*, 1840)
- b. The farming community of 900 people **doesn't have a single fast-food restaurant**.
(Cicero, K. *Weight loss x 2*, 2005)

My dataset consists of approximately 30,000 manually corrected examples drawn from the 400-million-word *Corpus of Historical American English* (Davies 2010). The dependent variable is either realized as the old form HAVE NOT or the new form DO NOT HAVE. The main independent variable is time - every sentence was recorded between 1810 and 2009. In addition, two contextual variables are analyzed. Every example is coded for object determiner type, either strong or weak, as well as for one of six clause types.

I hypothesize that the increase in *do*-support follows an S-shaped curve and that the change displays Constant Rate Effects (Kroch 1989), i.e. the innovative variant will favor or disfavor certain contexts but spread at identical rates in all of them. Both hypotheses are born out. There is an unmistakably S-shaped trajectory and the change increases at the same rate in the different contexts.

In the theoretical part, I propose a mathematical model that accounts for Constant Rate Effects. In essence, at every point during the transitional period, the underlying change is multiplied with constants, dubbed Constant Rate Factors.

They uniformly either add to or take away from the underlying change and thus different contexts will move in tandem with it. The model has three main advantages: It can predict accurately the magnitude of difference between different contexts (e.g. between strong and weak determiners in the empirical example). Secondly, the model can be falsified by empirical cases in which the probabilities of the contexts themselves changes over time. For such cases, the model predicts a corresponding adjustment in the Constant Rate Factors. Finally, the model allows all contexts to actuate a change simultaneously as well as to proceed at identical rates of change but without postulating an additional mechanism that sets the initial start frequencies of the contexts at different levels.

References

Davies, Mark. 2010. *The Corpus of Historical American English: 400 million words, 1810-2009*. <http://corpus.byu.edu/coha/> (accessed 22 May 2014).

Kroch, Anthony. 1989. 'Reflexes of Grammar in Patterns of Language Change.' *Journal of Language Variation and Change*, **1.3**, 199--244.