Population Dynamics of Language Change

Joshua Plotkin University of Pennsylvania Dept of Biology jplotkin@sas.upenn.edu

The dynamics of language change are mediated by interactions within the population of speakers. As a result, studies of language evolution may benefit from methods developed in population biology. Although phylogenetics has been used to characterize the relations among language families, there has been less effort to develop a quantitative theory for the short-term dynamics of a single language. Here we discuss preliminary efforts to characterize the degree of stochasticity and determinism in language change, based on empirical data on word frequencies extracted from 23,000 English texts.