S-curves and the Mechanism of Propagation in Language Change
RICHARD BLYTHE, W. CROFT, University of Edinburgh — Linguists have proposed a wide variety of mechanisms for the propagation of a linguistic innovation through the speech community. The complexity of social systems makes it difficult to evaluate the different mechanisms empirically. We introduce a four-way typology of mechanisms and provide mathematical definitions based on the symmetries that may (or may not) be present between different speakers in the community and/or between different linguistic variants. As in physics, such symmetries impose strong constraints on the patterns of change that may emerge as a result. In particular, we conclude that the widely observed empirical pattern of an S-curve temporal trajectory of change can be captured only by theories that invoke a pre-existing shared preference among speakers for the incoming variant.