Title: Self-Correcting Information Cascades

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HTTP link to paper: http://www.hss.caltech.edu/SSPapers/wp1197.pdf

Abstract

In laboratory experiments, information cascades are ephemeral phenomena, collapsing soon after they form, and then reforming again. These formation/collapse/reformation cycles occur frequently and repeatedly. Cascades may be reversed (collapse followed by a cascade on a different state) and more often than not, such a reversal is self-correcting: the cascade switches from the incorrect to the correct state. Past experimental work focused on relatively short horizons, where these interesting dynamics are rarely observed. We present experiments with a longer horizon, and also investigate the effect of signal informativeness. We propose a theoretical model, based on quantal response equilibrium, where temporary and self-correcting cascades arise as equilibrium phenomena. The model also predicts the systematic differences we observe experimentally in the dynamics, as a function of signal informativeness. We extend the basic model to include a parameter measuring base rate neglect and find it to be a statistically significant factor in the dynamics, resulting in somewhat faster rates of social learning.