Department of Human Evolutionary Biology Colloquium Series



Third Party Monitoring and the Evolution of Reciprocity

Robert Boyd

Professor, School of Human Evolution and Social Change, Arizona State University



Cooperation based on reciprocity is undermined by perception errors, mistakes that cause interacting individuals to disagree about past behavior. Strategies like Win-Stay-Lose-Shift (WSLS) and Generous Tit for Tat (GTFT) can reestablish cooperation following a perception error but only when errors arise infrequently. Here I introduce a strategy that relies on third-party arbitration to resolve disagreements, and show that it is evolutionarily stable even when perception errors are frequent and the opinions of the arbitrators are inaccurate or biased. The need for third-parties to resolve perception errors could explain why reciprocity is rare in other animals despite opportunities for repeated interactions, and why human reciprocity is embedded in systems of culturally transmitted moral norms in which community monitoring plays a role.

Haller Hall, Room 102 24 Oxford Street Cambridge, MA

Thursday, September 27 at 4 pm