

## James A. Kitts Research Statement

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I study cooperation and competition among organizations and among their members, using tools of formal demography and network analysis. My research focuses on multiple scales, from micro-dynamics of social interaction to macro-dynamics of organizational births and deaths.

Much of my micro-level work examines the dynamics of networks and norms in voluntary associations. For example, my recent articles in *American Sociological Review* and *Journal of Mathematical Sociology* show how rational members may advocate antisocial norms that diminish group welfare. In these papers, I map the conditions under which individualized incentives to contribute to the group may paradoxically diminish collective action. My analysis of five organization cases, reported in *Social Psychology Quarterly*, further shows how communication biases in social networks can lead groups to maintain and enforce unpopular norms. It also reveals how dynamics of communication in networks explain pervasive patterns in norm misperception, which previously had been attributed to egocentric cognitive biases.

In other micro-level studies, I have investigated the basic dynamics of networks within groups, modeling patterns of attrition, cultural convergence, and polarization. Several recent articles, some reporting on an extended collaboration with Michael Macy and Andreas Flache, used formal models of these processes to derive propositions and generate testable hypotheses. My empirical study in *Demography* with Steven Goodreau and Martina Morris used exponential-family random graph models to analyze three foundation dynamics of social networks: sociality, homophily, and triad closure. We revealed how these dynamics are deeply entangled, challenging decades of research in network analysis and also setting an agenda for future work. I am presently writing up a study of two graduate student cohorts that extends this lens over five years. This study investigates the co-evolution of interests, attitudes, and social networks, allowing unprecedented leverage on core questions of network dynamics by pairing sociometric surveys with direct observation of face-to-face interaction using wearable sensors.

My interests in the dynamics of cooperation and competition scale up to strategic interaction among organizations in local communities, within the domain of organizational demography. In a *Sociological Inquiry* paper, I analyzed interlocking memberships of neighborhood nonprofit organizations, showing how overlapping-goal interlocks lead to competition and decreased involvement by co-members, whereas irrelevant-goal interlocks apparently increase participation. These propositions scale up further to communities of organizational populations at the national level, as I have examined patterns of interdependence among social movements over nearly four centuries, beginning with a paper just published in *Social Forces*. Going forward, I am mapping mutualism and competition among movements, situated in geographic space and ideological space, again shedding light on stubborn controversies by modeling dynamics at multiple levels.

Active in cross-disciplinary programs of the National Science Foundation and National Academy of Sciences, I aim to bring cutting-edge methods from the general science and technology communities to the social sciences. My work has received substantial extramural funding from the NSF and from technology firms, and I have collaborated with industry researchers at Microsoft Research and Intel Research Laboratory. Emerging tools of remote sensing, interaction data logs for online commerce, and new tools for statistical analysis of relational data allow researchers unprecedented power to analyze organizational behavior with dynamic and multi-level lenses. My work over the next few years will extend these frontiers.