John Padgett's module in SFI's 1998 NSF proposal:

The Coevolution of States and Markets

In human history, speciation is the emergence of new organizational morphologies, primarily in economic and political domains--new types of firms and markets, new types of parties and states. Existing social science research in economics, political science, and sociology emphasizes strategic interaction among already given organizational entities. At best, the issue of organizational morphogenesis is posed as "the problem of aggregation", which reduces the issue simply to coordination among entities fixed one level down.

Work on autocatalytic networks at SFI (Kauffman 1993, Fontana and Buss 1994, Padgett 1997) offers the promise of recasting the organizational speciation problem in more dynamic network-unfolding terms. In contrast to the traditional economic view, which equates the firm with a set of bilateral contracts, in organisms, be they social or biological, rules of action and patterns of interaction persist and reproduce even in the face of constant turnover in component parts, be these cells, molecules, principles, or agents.

In the constant flow of people through organizations, the collectivity typically is not renegotiated anew. Rather, within constraints, component parts are transformed and molded into the ongoing flow of action.

In this context, SFI has been supporting for the past two years a new social science program initiative on the "coevolution of states and markets", chaired by John Padgett [Political Science, University of Chicago], recently joined by David Stark [Sociology, Columbia University]. The core of this initiative is two deep historical and statistical studies of the detailed sequence of transformations in organizational and social-network morphology that took place in two major transitions on which Padgett and Stark are expert: (a) "the birth of financial capitalism" in Renaissance Florence, and (b) the recent transition from communism to capitalism in Eastern Europe, with an empirical focus on Hungary. In each of these epochal cases, major "speciation" transformations in both economic and political organization were simultaneously implicated.

This states-and-markets program, like the anthropology program, is more data intensive than other segments of SFI. But SFI believes that its core mission, the study of dynamic emergence, can be pursued through multiple methods.

One of the main findings to date of this empirical
initiative is the importance of (re)concatenation across multiple networks to the dynamics of speciation. Organizations are not isolated objects in social vacuum; they are congealed nodes in multiple cross-cutting flows of people, capital, trading, technology, and deals. Appreciating how these flows are "rewired" or "restapled" during turbulent transitions is the key to understanding which sets of organizational forms can sustainably unfold. In Florence, the social-network plumbings for these flows were family, marriage, loans, guild-training, and factional patronage. In Hungary, they were friends, supplier networks, unions, political patronage, and (more recently) financial ties to the West. Operationalizing "autocatalysis" across multiple flows is the main theoretical challenge this empirical work poses to SFI modelling.

For our home literatures of state-formation and market-formation, the main contribution of this SFI line of research will be to unpack detailed mechanisms of their dynamic interaction. Internal cleavage between the social science disciplines of economics, political science, and sociology leads to insufficient academic analysis of the consequences of multiple embeddings for all organizations—namely, the political context of business firms, the economics of political parties and state bureaus, and the social networks cross-cutting and linking both sides. Padgett (1993) and Stark (1996) have individually published on the centrality of multiple accounting for the power, adaptability, and self-conception of fragile new organizational forms. New forms are always path-dependent recombinations of old elements, but the new SFI work focuses on how social network reconfigurations, on a macroscopic societal scale, channel the dynamics of these local recombinations. Judging from our two empirical cases, the most organizationally consequential of these large-scale network reconfigurations appears to be the restructuring of access linkages, mostly at the elite level, between central political and economic units. Access interaction at the top (re)shapes the morphology of each side, not only at the top but also lower down, through the diffusive mechanism of careers.

The core dyad of Padgett and Starks is merely the nucleus of a broader network of academics who already have participated heavily in the states-and-markets program:

(a) Participants in a month-long (June 1998) research group on state/market coevolution, besides Padgett and Stark, included:

Christopher Ansell, Political Science, University of California, Berkeley
Larry Blume, Economics, SFI & Cornell University
Bruce Carruthers, Sociology, Northwestern University
Walter Fontana, Theoretical Chemistry, SFI & University of Vienna
Charles Sabel, Law, Columbia University
(b) Participants in a week-long planning workshop (October 1997) included, besides the above:

- Aaron Cicourel, Sociology, University of California, San Diego
- Andy Clark, Philosophy, Washington University, St. Louis
- Michael Cohen, Information Sciences, University of Michigan
- Mark Granovetter, Sociology, Stanford University
- Tom Hughes, History of Science, University of Pennsylvania
- Edwin Hutchins, Cognitive Science, University of California, San Diego
- David Laitin, Political Science, University of Chicago
- Ian Lustick, Political Science, University of Pennsylvania
- Richard Palmer, Physics, SFI & Duke University
- Duncan Watts, Engineering, Cornell University
- Harrison White, Sociology, Columbia University

(c) Now that Duncan Watts, a superb network methodologist, has joined the SFI staff, he will bolster the formal aspects of this program.

(d) One of the empirical goals of the program is to expand toward a third case, to strengthen the generality of our findings.

While research quality is obviously the main criterion, our preference is to find experts on the emergence of industrial districts, be they in Italy, Germany, Japan, or California.

Citations:


Europe. Cambridge Press.