# AN ORGANIZATIONAL SOCIOLOGY OF STANFORD'S ORGANIZATION THEORY RENAISSANCE

If you peruse the table of contents of a textbook on organizational theory or search the web for courses in organizational sociology, you cannot help but notice how many of the key contributors to the field spent time at Stanford between 1970 and 2000, as faculty members, post-docs, or graduate students. Skim a few syllabi, and you will find that many of the seminal articles and books were written at Stanford in those years. Many of the most productive and innovative scholars in the field taught at Stanford or studied there.

Of the five most influential macro-organizational paradigms in play today – institutional theory, network theory, organizational culture, population ecology, and resource dependence theory (in alphabetical order) – Stanford served as an important pillar, if not the entire foundation, for all but network theory. By the 1990s, it became an important site for network theory as well. Today Stanford immigrants, and second-generation offspring of immigrants, hold faculty positions across the country. Visit the web sites of leading sociology departments and business schools and you will find them in profusion.

To date there has been no sustained effort to understand Stanford's influence on organizational research. How did Stanford become so prominent in this field? How has it had such a lasting influence on intellectual developments in organization theory? Armchair theorizing abounds, and pet theories range from Machiavellian meditations on a subterranean "West Coast Mafia," to Malthusian meanderings about the effects of the San Francisco Peninsula's climate, to Saxenian speculation about the proximity of so many open-architecture start-up paradigms in a single zip code.

This volume is an effort to fill that void. Thirty essays from Stanford faculty, Ph.D. students, and post-doctoral fellows from the period of 1970 to 2000 discuss the theoretical and empirical contributions that emerged in those years and turn the sociological lens back on the phenomenon, seeking to explain why Stanford generated so many good ideas and pathbreaking

studies. The list of contributors breaks sociology's first methodological dictum: study anything but yourself. While that makes the contributors less than fully objective, it does ensure that they know something about that of which they speak.

## ORGANIZATIONAL SOCIOLOGY'S PARADIGMATIC REVOLUTIONS

In 1981, W. Richard (Dick) Scott of Stanford's sociology department described a paradigmatic revolution in organizational sociology that had occurred in the preceding decade. In *Organizations: Rational, Natural, and Open Systems* (Scott, 1981), he depicted the first wave of organizational theory as based in rational models of human action that focused on the internal dynamics of the organization. He described the second wave, found in human relations theory and early institutional theory, as based in natural social system models of human action but still focused on the internal "closed system." A sea change occurred in organizational theory in the 1970s as several camps began to explore environmental causes of organizational behavior. The open-systems approaches that Scott sketched in 1981 were still seedlings, but all would mature. What they shared was an emphasis on relations between the organization and the world outside of it. The roots of these new paradigms can be traced to innovations of the 1960s. Contingency theorists Paul Lawrence and Jay Lorsch (1967) had argued that firms add new practices and programs largely in response to external social demands and not simply to internal functional needs. James Thompson (1967) argued that organizations come to reflect the wider environment and particularly the regulatory environment.

From the late 1970s, resource dependency and institutional theorists expanded on these insights. Both found organizations adopting structures in response to environmental pressures, but the two schools envisioned the environment differently (Oliver, 1991). In *The External Control of Organizations*, resource dependency pioneers Jeffrey Pfeffer and Gerald Salancik (1978) argued that as organizational dependence on suppliers, customers, or regulators increases, so will organizational attention to the expectations and demands of these groups. Strategic response to environmental demands is the key. In "Institutionalized Organizations: Formal Structure as Myth and Ceremony", John Meyer and Brian Rowan (1977) argued that firms choose structures and strategies to symbolize their commitment to norms of efficiency and fairness. Then in "The Population

Ecology of Organizations", population ecologists Michael Hannan and John Freeman (1977) described organizational characteristics as arising from environmental selection. Organizations within a population are founded with an array of different structures and strategies (variation), they compete for environmental resources, and the environment selects for retention those best adapted to survive.

Resource dependency theorists developed a power theory of the organization from an open-systems perspective. Institutionalists developed a social constructionist theory from an open-systems perspective. Ecologists developed a theory of competition from an open-systems perspective.

If three vibrant paradigms at Stanford were contributing to an open-systems revolution, two were contributing to a social constructionist revolution, institutional theory and organizational culture theory. The prevailing theories of the 1960s were broadly functionalist or materialist. Institutionalists now focused on the social construction of common organizational practices across the field of organizations. Organizational culture theorists emphasized the construction of idiosyncratic folkways among the members and sub-groups in an individual firm. Organizational institutionalists were concerned with why organizations portrayed themselves as so much alike. Culture theorists were concerned with why they portrayed themselves as so distinct.

The four paradigms that prevailed at Stanford during this time thus varied on two dimensions. Three were open-systems perspectives, emphasizing power, competition, and social construction, respectively. Two were social constructivist theories, emphasizing the external and internal field, respectively. The ideas spawned by these four paradigms ran the gamut of what was being done in sociology more broadly, from the micro interactionism of organizational culture theory to the macro rationalism of population ecology theory. This much was clear: Stanford's organizational community did not arrive at such prominence on the national and international scene because of groupthink. Despite a couple of common themes across these paradigms, the organizational culture in Stanford's organizational community was characterized by sharply divided subcultures.

In the core of this essay, we take the perspectives of each of these four theories in turn to try to understand the Stanford organizational phenomenon. We find useful insights from each of the theories. But we begin with two important caveats. One caveat is that Stanford was not necessarily the progenitor of these theories. Indeed, all four can be traced to other institutions, as we will see in the chapters that discuss them. Population ecology can be traced to the time that Hannan (Stanford) and Freeman (Berkeley) spent in

graduate school at the University of North Carolina, and the influence of the ecologist Amos Hawley. Resource dependence germinated at the University of Illinois where Jeffrey Pfeffer collaborated with Gerald Salancik, although many of the ideas can be traced back to Pfeffer's earlier doctoral dissertation at Stanford. Organizational culture can be traced to Edgar Schein and John Van Maanen at MIT and to the spontaneous generation of similar ideas in a number of European and American universities, as Mary Jo Hatch argues in her essay. Organizational institutionalism can be traced to Peter Berger (Boston University) and Thomas Luckmann's (University of Constance) *The Social Construction of Reality* (1966), as well as to Philip Selznick (Berkeley) and his early work on institutions within organizations.

The other caveat is that there were organizational scholars from a number of other paradigms making important contributions at Stanford in this period as well, including the organizational psychologist Robert Sutton from the School of Engineering, Roderick Kramer the psychologist of trust at the graduate school of business (GSB), the national culture theorist William Ouchi at the GSB, and the network theorist Don Palmer at the GSB. Some of the leading scholars contributed to multiple paradigms – James (Jim) March is an institutionalist in some writings, a learning theorist in others, and the co-founder of Garbage Can theory in still others. The first section of the book covers eight broad theoretical approaches that were represented – resource dependency, institutional theory, ecology, learning theory, organizational culture, labor market theory, network theory, and health care research. We might have included others. In this essay we discuss four of the most influential paradigms to illuminate the organizational phenomenon that was the Stanford organizational community.

## FOUR ORGANIZATIONAL THEORIES APPLIED TO THE CASE

While the origins of the paradigms that are the source of Stanford's prominence in organizational theory can be traced to other institutions, there is little doubt that Stanford became a fount of ideas for a number of different paradigms. Important contributions were published by scholars at Stanford, and in population ecology, institutionalism, resource dependence, and organizational culture, many of the leading second-generation scholars were trained at Stanford. Why did these paradigms flourish as they did at Stanford?

Sociologists of knowledge talk about an array of factors that contribute to paradigmatic vitality. Thomas Kuhn (1970) points out that in science,

one paradigm must begin to falter before it can be replaced. Perhaps the impetus for the blossoming of organizational paradigms in the late 1970s was the widespread rejection of functionalism across sociology's subfields. But why did so much paradigmatic innovation occur at Stanford? Harriet Zuckerman and Robert Merton (1972) talk about the accumulation of advantage in science, as centrally located actors in an intellectual field win greater resources than those on the periphery, which in turn helps them to win further resources. Perhaps the accumulation of advantage redounded to the institution itself at a certain point, but the Stanford organizational community moved from being a relatively obscure outpost to being a central player in fairly short order. If the accumulation of advantage was at work, one would have expected Harvard, where Paul Lawrence and Jay Lorsch and Talcott Parsons sat in the 1970s, or Columbia, where Peter Blau and Robert Merton and C. Wright Mills had held court, to have prevailed in the 1980s and beyond. Stanford University itself was just rising to national prominence in the 1970s, as Dick Scott discusses in the concluding chapter.

Diana Crane (1972) argues that invisible colleges, comprising national networks of distributed scholars working together on intellectual projects, generate excitement and innovation and dynamism. Stanford was more of a visible college, with a significant concentration of organizational scholars on one campus, and the paradigmatic differences across the different subgroups might have been expected to divide that college. On other campuses, competing paradigms have played out the roles of the Hatfields and the McCoys. Stanford saw some healthy sibling rivalry between paradigms, but the groups never came to blows. Perhaps Stanford achieved some of the benefits of invisible colleges and some of the benefits of visible ones.

Actor network theorists trace the use of particular scientific devices that help paradigmatic groups to cohere and to spread their techniques and ideas (Callon, 1998). We can identify some cross-usage of methodological tools and even theoretical components. For instance, both institutional theorists and population ecologists made use of new event history techniques (Tuma & Hannan, 1984) to demonstrate their claims and establish beachheads in the leading quantitatively oriented journals (*American Sociological Review*, *American Journal of Sociology*, and *Administrative Science Quarterly*). The same two camps borrowed ideas, as when ecologists embraced the idea of legitimacy, or institutionalists began to use the idea of density. But beyond that, the spread of methods and theoretical concepts was haphazard. Generally, methodological conventions divided rather than united the paradigms. Organizational culture theorists used ethnography

(Martin, 1992), garbage can theorists relied on mathematical models (Cohen, March, & Olsen, 1972), and resource dependence theorists employed cross sectional statistical models (e.g. Pfeffer & Cohen, 1984). The semiconductor certainly explained the rise of early entrepreneurial groups in Silicon Valley, but there was no analogous technology to explain the rise of Stanford's entrepreneurial paradigmatic groups in organization theory.

The approach we take is not to build on insights from the sociology of science, but to apply some of the organizational theories that were being developed at Stanford to the case of Stanford's success in organizational theory. We ask: Can Stanford's theories help explain the proliferation of theories that emerged at Stanford between 1970 and 2000? We follow this path for two reasons. First, in applying four organizational theories to the case of the rise of one particular organization (Stanford University) in one particular domain (organizational analysis), we set the scene without simply previewing the chapters and potentially stealing the authors' best lines. More formal reviews of these four paradigms, and four other approaches and substantive areas that were developed at Stanford, appear in the eight chapters that make up the first section of this volume.

The second reason we apply organizational paradigms to the question of Stanford's peculiar success is that, by contrast to most scientific phenomena, the case of Stanford's preeminence as a place for organizational analysis seems to us to be a specifically organizational phenomenon. Most works in the sociology of science trace the rise of a paradigm, scientist, or type of scientist. The paradigm or the scientist is the unit of analysis. In this case, the phenomenon occurred at the level of an organization, Stanford University, and so the organization seems to us to be the appropriate focus. The typical caveats about drawing conclusions from a case study apply. But we view the chapter, and the book more generally, as an exercise in grounded theory. What lessons do a bunch of certified social scientists take from an exceptional case, and one they know well? Following the chapters that sketch the remarkable contributions of Stanford's organizational paradigms, most of the essays from former faculty and students take up the question of what made Stanford "work." One can read them as 22 efforts at grounded theory, or as 22 different Rashomon-like angles on the same event, Stanford's rise in organizational theory.

The chapters in the Theories section of this volume chronicle the evolution of each of eight theoretical and substantive approaches. Here, we sketch one or two ideas from each of four theories that might help to explain Stanford's phenomenal intellectual dynamism in the field of organizational sociology between 1970 and 2000.

### *Resource Dependence*

Resource dependence theory suggests that organizational structure and strategy are influenced importantly by the resource flows available from the environment. Organizations succeed by adapting to their environments. Where resource streams are available, organizations that decode the best means for drawing those resources are most likely to prosper. In the case of academic research, dimensions of the resource environment are multiple. Each university must draw talented students to its degree programs, grants from federal agencies and private foundations, gifted faculty to staff teaching and research positions, and substantial donations to build its endowment.

From the perspective of resource dependence, Stanford's organizational community of the 1970s and 1980s succeeded by adapting to two sorts of financial resource flows with particular agility. First, in the sociology department Dick Scott spearheaded efforts to attract federal dollars that would provide support for graduate students and post-docs, who are the lifeblood of university-based research. Beginning in 1972, Scott spearheaded efforts to win a series of training grants first from the National Institute of Mental Health (NIMH) and later from the National Institute of Aging (NIA) that would support successive cohorts of graduate and post-doctoral students. That Scott's grant proposals would be successful was far from a foregone conclusion. Neither Scott nor his primary collaborators were experts in mental health or in aging when they began their quests for funding. Their claim was that they could strengthen organizational scholarship in ways that would improve our understanding of all organizations, including mental health systems and organizations serving the elderly, and could examine the ways in which all organizations affected the mental health of their participants. The federal model of supporting basic research and research training through grants for institutional development was the root of Stanford's success, and so was the entrepreneurship of one particular sociology faculty member.

Scott's success in attracting NIMH and NIA funding provided a research foundation for attracting another important resource: graduate students and post-docs. Many graduate students (including the authors of this chapter) benefitted from pre-doctoral training grants that allowed them to pursue the research interests that inspired them and to collaborate on research projects with their choice of faculty. The grants allowed sociology and the business school, in particular, to expand their doctoral programs by providing funding to scores of advanced students. At the same time, generation upon generation of post-doctoral students came to Stanford

and developed collaborative projects with graduate students and faculty members. The appendices list the dozens of graduate students and post-docs who benefitted from these grants.

The training grants also stipulated that pre-doctoral trainees would participate in a regular seminar. From its inception in 1972, the weekly organizations research training program (ORTP) seminars were led by successive faculty members, first by Jim March, then Gene Webb, next by Bill Ouchi, and then others in subsequent years as faculty rotated through the responsibility. In addition to the incredible faculty students were able to work with and learn from, the students themselves contributed substantially to the quality of these weekly seminars. Many early dissertation ideas were vetted and nourished as seminar papers in this context. In addition to the pre-doctoral seminars, lively colloquia were organized each quarter. These featured a series of visiting and local scholars who helped infuse additional perspectives into the emerging interdisciplinary community. With students and faculty drawn from sociology, the business school, industrial engineering, education, psychology, and other units meeting weekly to hear presentations by students, faculty, and visitors, a strong interdisciplinary community began to flourish. Subsequently faculty were able to leverage additional funds, principally from the Graduate School of Business, to support a monthly colloquium series to host leading organizational scholars from outside the University. The seminars and colloquia proved key to creating an ongoing interdisciplinary community.

The NIMH funding also helped to finance an annual conference for the Stanford organizational community, held most years between the mid-1970s and the early 1990s. While the first conference was a commuter event held at the local Atherton House and featured James Coleman, the organizers soon took advantage of Stanford's proximity to the Pacific Ocean. As the organization community grew, the event graduated to a cluster of private homes at Pajaro Dunes and finally moved further south along the coast to the Asilomar conference grounds in Monterey. Each year 100 or more Stanfordites got together for several days to listen to plenary speakers from outside, to discuss their own work, and to build community by walking along the beach and partying through the night.

Stanford's organizational community emerged from a combination of Dick Scott's institution-building efforts, which were informed by the grant requirements of the National Institute of Mental Health, and later the National Institute of Aging. With a strong history of collaboration, with Peter Blau, Sanford Dornbusch, and John Meyer to name just a few, Scott was able to entice others to join him. The collective organization theory

resources helped to draw faculty to Stanford, and keep many there, for faculty benefitted from subsidized graduate student research assistants and post-docs as well as the research seminars, colloquia, and annual conferences that helped to build national as well as local network ties. Faculty also benefitted from strong theory and methods courses in the business school, the sociology department, and beyond that created a flow of sophisticated research assistants/collaborators. The educational resources benefitted both sides, for faculty could rely on the statistical skills and theoretical knowledge of students, and well-trained students hired to code data or conduct interviews often found themselves as full collaborators on research articles.

Pfeffer and Salancik's resource dependence theory suggests that organizations that are able to take advantage of environmental resource pools will prosper, and that is certainly what happened when Stanford was able to support organizational scholars at the pre- and post-doc levels. The program drew unlikely candidates into a field of sociology, organization theory, that had recently been dominated by functionalist thinking. The institution was built out to meet resource flows, such that people who had not worked on health systems or aging previously moved in that direction. Amy Wharton's essay tells of how the grants influenced her research and Mary Fennell and Anne Flood's essay describes the multiple studies in health systems and the accompanying theoretical development.

As federal agencies began to decommission the programs that had funded the Stanford community through the late 1980s, Dick Scott and Jim March scanned the resource environment for alternative venture capitalists and came up with an inside and an outside source of capital. Scott drew on the emergent university model of inter-disciplinary centers to found the Stanford Center for Organizational Research (SCOR), drawing on short-term university funding to continue the tradition of interdisciplinary colloquia, workshops, and the post-doc program from 1988 to 1995. Thus as the resource environment changed, the implicit CEO of Stanford's organizational community pursued a new institutional funding model, in which Stanford (like its peers) provided venture capital to a start-up center in the hope that the center would attract new investors for the second round of funding.

In the spring of 1989, Jim March negotiated for a Scandinavian organizational research center at Stanford, under the auspices of the Scandinavian Consortium for Organizational Research. SCANCOR created a U.S. outpost for Scandinavian organizational researchers for pre-doctoral, post-doctoral, and sabbatical visits. Its festive opening celebration was attended by Denmark's Crown Prince Frederik, and SCANCOR continues

to this day, with support from Finland, Denmark, Iceland, Norway, and Sweden, under the leadership of institutionalist and network theorist Walter (Woody) Powell.

From a resource dependence perspective, then, Stanford's success in organizational sociology was a consequence of a federal funding model for supporting basic science and research training that provided funds not only for specific research projects but also for institutional development and staffing. A core set of entrepreneurs at Stanford brought the community together to apply for several rounds of funding. The university's capacity to adapt to the resource environment made it a success in this domain.

### *Population Ecology*

Ecologists began with the insights that organizations compete with others in their populations, and that those best adapted to their environments are most likely to survive. The characteristics of any particular population of organizations are driven by conditions at the time of founding (birth) and then by natural selection. Theirs is not simply a theory of competition and selective survival, but of the creation of new industries through processes such as legitimacy. Hannan and Freeman (1989) argued that when a new industry is emerging, the establishment of each new enterprise contributes to the legitimacy of the industry in the eyes of investors and clients. With each new Argentine newspaper, American labor union, Irish microbrewery, or California vintner, investors and consumers gain confidence that the industry as a whole will survive and prosper, and thus the survival chances of individual firms increase. Until, that is, the market approaches saturation, at which point, each additional founding will increase competition and the survival chances of incumbents will decline. This approach is very much at the heart of the work of current Stanford Graduate School of Business faculty Michael Hannan, Glenn Carroll, and William Barnett.

If academic paradigms are like enterprises and if intellectuals are like entrepreneurs, the "density dependence" thesis of organizational ecologists may offer insight into why so many different intellectual groups flourished at Stanford at the same time. Intellectual entrepreneurs established a number of different academic enterprises side-by-side in the 1970s. There was Jim March, housed in the Hoover Institution but with joint appointments in sociology, education, political science, and the business school. His enterprise contributed generations of graduate students and post-docs working on learning theory, garbage can theory, and decision-making. There was Mike

Hannan in sociology, whose closest early collaborator was John Freeman at Berkeley, but who soon had a lab employing a host of graduate students on population ecology projects. There was Dick Scott, the original organizational sociologist in sociology proper, who collaborated with Sandy Dornbusch on studies of authority systems in organizations and later with John Meyer on institutional studies. Together they trained generations of graduate students working on education, health systems, and institutional theory. There was John Meyer, who worked with Hannan and students on studies of the diffusion of public policies and with Scott and students on the diffusion of organizational policies. There was Jeffrey Pfeffer in the Graduate School of Business, who collaborated with graduate students and post-docs on resource dependence studies. There was Joanne Martin in the Graduate School of Business who developed her own organizational culture lab that trained cohorts of graduate students.

These labs were in full swing by 1980, and rather than competing for scarce resources, they seemed to build upon one another. The importance of organizational analysis in the sociology department was bolstered by its role in the graduate school of business and, later, in the school of engineering's management program. The presence of organizational theorists in education, health systems, and engineering confirmed the salience of the research in other domains. Most importantly, as each paradigm began to win legitimacy in the publishing world, by taking up pages in the *Administrative Science Quarterly* (ASQ), the *American Sociological Review* (ASR), and the *American Journal of Sociology* (AJS), the others seemed to gain legitimacy. If each paradigm was an enterprise, the vitality of one paradigm in the population fueled the success of paradigms that economists might have seen as competitors.

This environment might have proven toxic to start-up paradigms competing in the resource space. As enterprises grow in size, conventional industrial organization theorists suggest (Tirole, 1988), they achieve economies of scale and scope that make it difficult for small upstarts to survive. Population ecologists recognize another dynamic at work with the growth of dominant firms in an industry, which they term resource partitioning (Carroll & Swaminathan, 2000). Dominant firms in the core of an industry (think of Honda) may come to produce for the average consumer, leaving space for specialty producers in niche markets (think of Maserati or the Mini Cooper). Honda may provide little competition to those brands. The same process may operate in academic markets. Where a dominant theory exists, attracting the bulk of graduate students and research resources, that theory may leave unexplored intellectual terrain for other theories. Other theories may prosper in niche markets.

One might describe the initial rise of organizational culture theory in these terms. Where the population ecologists, resource dependence theorists, and institutionalists had engaged the interest of the quantitative, macro, graduate students and post-docs, Joanne Martin was able to attract a sizeable group of students with qualitative and micro orientations. They came to Stanford to work with her, in one of the liveliest organizational communities around. Or they came with uncertain interests and were drawn to her more micro and qualitative approach. Others as well prospered in this environment, such as the trust theorist Rod Kramer, Steve Barley, who brought his own brand of organizational culture theory to Stanford, and Don Palmer, who was developing an open-systems network approach inspired by power theory.

To move up a level, from treating the university as a field to treating the system of universities as a field, one can see evidence that the Stanford model of fostering an organizations community spread to other universities. Beginning first in the San Francisco Bay Area, faculty and students at nearby universities began to organize themselves to send delegations of students and faculty to the Asilomar conference. Soon, UC Berkeley, UC San Francisco, UC Davis, UCLA, and USC were regular participants, some helping to co-fund the annual conference. Soon doctoral students and post-docs moved on to assume faculty positions at other universities, and as they did replications of Stanford's organizations model began to appear. First at the University of Texas and then at Illinois, Michigan, Northwestern, Pennsylvania, and Minnesota centers or networks of organizations scholars were created (see Scott's concluding chapter). Each program gathered ideas, support, and legitimacy from the existence of the others. The idea of bringing organizational sociologists in sociology departments, business schools, engineering schools, medical schools, law schools, together in a university-wide interdisciplinary program became institutionalized. Appendix D lists the domestic and international university-based organizations centers in operation circa 1995.

### *Neo-Institutionalism*

The classical organizational institutionalism of Selznick (1949, 1957), Zald and Denton (1963), and Clark (1960) focused on the natural history of an organization, charting how practices and programs became taken for granted and developed a life of their own as institutions. The new institutionalism that was introduced by faculty member John Meyer and graduate student Brian Rowan (1977) in "Institutionalized Organizations: Formal Structure as Myth and Ceremony" focused on the rise and spread

of new practices and programs in the organizational field, emphasizing not the inner workings of the organization, but the external sources of organizational ideas and programs. Both approaches emphasized the social construction of particular organizational regimes as fair, efficient, appropriate, and even optimal – the best possible way to proceed.

The organizational institutionalists working at Stanford, led by sociology faculty members John Meyer and Dick Scott, and later Walter (Woody) Powell, and encompassing several generations of graduate students and post-docs as well as other faculty members, took a new approach to understanding organizations. They paid little attention to an organization's internal dynamics or functional needs, and instead traced the spread of innovations across the population of organizations. How did school reforms, corporate due process mechanisms, total quality management, or the poison pill spread from one firm to another?

As students in Dick Scott's famous graduate/undergraduate class on organizational sociology, we all learned about organizational boundary spanning. We also learned about the multiplicity of particular organizations. The federal government could be treated as a single organization, or as hundreds of distinct organizations with different missions and purposes under a broad umbrella. Likewise, the university could be viewed as a singular entity, or as dozens of organizations with distinct structures and missions.

New organizational institutionalism, like population ecology, can be applied to the case of Stanford University if we treat the different theoretical camps, or research labs, as distinct organizations with their own personnel and missions, albeit with personnel and missions that sometimes overlapped and that existed under the same umbrella. Perhaps the research university is best viewed as a network organization, with hundreds of entrepreneurial faculty building their own project-based teams to conduct research, and then disassembling and reassembling teams as they initiate new projects (Powell, 1990).

A key insight from the new institutionalism is that innovations gain legitimacy as they spread through the population, of firms or government agencies or schools or (in this case) research labs. As they diffuse, they confer legitimacy on adopters. To be modern is to be on alert for the latest innovation that will make your firm, agency, school, or lab more efficient, adaptable, rational, equitable, etc. Four new organization-theory institutions spread among the Stanford paradigms we are focusing on in this chapter. Each innovation gained legitimacy in the local community and soon influenced the field of organizational sociology more generally. As these approaches gained in popularity at Stanford, they also gained in

popularity in the journals. In institutional terms, each innovation helped to legitimate the research labs that adopted it, and each adoption by a lab helped to legitimate the innovation.

The first innovation was a focus on the effects of the organizational population, field, or network. Contingency theorists like Lawrence and Lorsch (1967) had already turned their attention to the environment, but they focused on the relations between an individual firm and specific organizational partners in the environment; partners that influenced the firm's life chances. For contingency theory, it was the relations between a firm and its buyers, or a firm and its regulators – its "organization set" – that mattered. The firm was still the focus, and the environment was viewed as comprising several dyadic relationships with outsiders.

Ecologists, institutionalists, resource dependence theorists, and network theorists moved toward making the constellation of organizations in the environment the focus. They turned their attention from ego, to all of the others in the environment and the overall structure of their relations. These theories were based on relational approaches found in the human ecology of Amos Hawley, the social constructionism of Peter Berger and Thomas Luckmann (1966), the power theory of Mills (1956), and the network approach of Georg Simmel (1964), respectively. Those theorists had explored the wider social arena as the main object of study, and the new paradigms found at Stanford brought a relational approach to the study of the organization. Functionalist and neo-Marxist theorists of the firm had long operated with a wider view of the role of the firm in society, but organizational studies had come to focus on the internal mechanisms determining organizational structure and strategy.

Ecologists took the most revolutionary position, focusing on the formal characteristics of the population rather than on those of the firm itself, and nearly denying the capacity of the individual organization to act on its environment and affect its life chances. Network theorists likewise focused on the formal characteristics of the other organizations in the environment. Institutionalists took an intermediate position, describing in statistical studies the behavior of the individual firm as a result both of internal characteristics and external trends in the field. New models of organizational behavior were devised and legitimated in the organizational field. For resource dependence theorists, the entire constellation of suppliers, customers, competitors, and regulators shaped the firm's strategy. The empirical focus was on ego's network rather than on the population. Because each organizational theory imported a conception of the relational environment from the meta-theory it drew inspiration from, it is not quite

accurate to say that the population approach spread from one paradigm to the next. Instead, the use of a population or field approach in one domain of organizational research helped to legitimate it in other domains. As these paradigms gained ground they reinforced – and in important ways, reinvented – the "open-systems" approach.

The second innovation to gain legitimacy from common use was event history analysis. In the 1970s, the gold standard in quantitative organizational study was the large *N* cross-sectional study. Everything we knew about organizations based on quantitative analysis came from such research. In Stanford's sociology department, Nancy Tuma and Michael Hannan built on survival techniques in demography to develop event history techniques to analyze divorce rates – a dichotomous dependent variable – in the Seattle-Denver Income Maintenance research program. Tuma pioneered the RATE statistical program to run event history analyses at a time when the prevailing statistical software packages, SPSS and SAS, had nothing of the kind in their toolkits. Tuma and Hannan published their opus on time series modeling, *Social Dynamics: Models and Methods* in 1984, but by the late 1970s they and their students were using event history modeling and the RATE program widely.

In 1979, Meyer and Hannan published an edited volume, *National Development and the World System*, in which they used longitudinal data and dynamic techniques to analyze the diffusion of policies across countries and the effects of those policies. Meanwhile, both population ecologists and institutionalists began to use the modeling techniques to study organizational change, though in different ways. For the ecologists, the events were vital rates of organizational births and failures. For the institutionalists, the events were organizational program adoptions. By the late 1970s, an event history course was required as part of the sociology doctoral course sequence, and in short order, students working in both research labs had lost interest in cross sectional data and were collecting longitudinal data. Moreover, students of organizations from across the University flocked to these courses. The ecologists collected data on foundings and failures in a wide range of organizational populations. The institutionalists first collected longitudinal data for the world polity studies, focusing on policy diffusion across countries, and then began to work at the organizational level, focusing on the spread of policies across schools and firms. Others outside of the population ecology and institutional labs, including GSB faculty member Don Palmer and doctoral student Jerry Davis, were soon using dynamic modeling techniques as well.

Scholars from other organizational paradigms began to use longitudinal modeling techniques and by the end of the 1980s, a strong preference for dynamic modeling could be found in the leading outlets for organizational sociology, particularly the *Administrative Science Quarterly*, *American Sociological Review*, and *American Journal of Sociology*. The approach had gained wide legitimacy for its capacity to better specify causality by identifying the organizational and environmental shifts that immediately precede events of interest, which ranged from organizational failure to adoption of safety departments.

The third factor to spread across labs was the theoretical concept of legitimacy. The institutionalists infected the ecologists with their theory of legitimacy, or perhaps both were infected by the work of Stanford sociologist Morris (Buzz) Zelditch Jr., a social psychologist who had long worked on legitimacy (Evan & Zelditch, Jr., 1961), and whose interest was stimulated in part by Dornbusch and Scott's (1975) examination of the role of legitimacy in authority processes. Influenced by Buzz Zelditch's social psychology and John Meyer's developing institutional ideas, Lynne Zucker's (1977) dissertation focused on the role of institutionalization in cultural persistence. For ecologists, the concept of legitimacy provided a solution to an empirical quandary. Resource competition is a key mechanism for human as well as biological ecologists. The ecologists noticed that in organizational populations, an increase in competition for resources threatened the survival of incumbent firms, but only after population density reached a certain level. In the early years of an organizational population, or industry, each new birth improved the life chances of incumbents. Ecologists borrowed the idea of legitimacy to explain their particular version of the ecological concept of population density dependence (Hannan & Freeman, 1989, p. 131). They argued that as organizational populations increase in size from zero, density has a positive effect on the life chances of organizations because each new organization increases the legitimacy of the form. Greater theoretical precision and some rapprochement between the two theories was facilitated by a spirited exchange in the ASR between Lynne Zucker (1989, p. 542) and Carroll and Hannan (1989), in which Zucker argued that both historical context and legitimacy should be measured directly to adequately account for increasing rates of organizational foundings. Nonetheless, diffusion of the idea of legitimacy from institutional theory to ecology helped to legitimate the legitimacy concept, and in so doing helped to legitimate both theories. Institutional theory added a cultural mechanism to the much more rationalist population ecology theory, and ecology broadened its theoretical base by borrowing from a constructionist paradigm.

The fourth innovation that gained legitimacy by being employed across paradigms was the metatheoretical approach of social constructionism, shared by the new institutionalists and organizational culture theory. Here again, it was not so much that a concept spread from one research lab/paradigm to another, as that mutual adoption of a concept bolstered the paradigms and the concept. Organizational culture theory, as we see below in the essays by Mary Jo Hatch and Joanne Martin, emerged out of the work of people such as Edgar Schein and John Van Maanen at MIT and Linda Smircich at the University of Massachusetts at Amherst. The approach was based in social psychology and anthropology and it was, in the instantiation that Joanne Martin and others developed at Stanford, social constructionist. The local culture and its meanings were developed through social networks. Cultural practices gained meaning through interaction, ritual, repetition, and myth. The social constructionism found in the new institutionalism was based to a greater extent in the phenomenology of Peter Berger and Thomas Luckmann (1966) who were strongly influenced by Alfred Schutz (1970). While the two paradigms can be traced to different sources, the core ideas about the role of social construction in meaning-making and in the persistence of organizational practices were strikingly similar. The two theories lent credence to one another by making parallel arguments about how the social construction of reality contributed to the persistence of cultural forms and practices. The intersubjective objectivation of organizational customs became a focus of both approaches.

If we look across these four paradigms, there were some instances of diffusion, as when event history methods were taken up by the institutionalists or when the concept of legitimation was taken up by ecologists. But the focus on the field or population, and the concept of social construction, were out there in the ether somewhere, and they were taken up at about the same time by different paradigms that had strongholds at Stanford. It was their simultaneous adoption and use that helped to legitimate them. Perhaps they were adopted at about the same time because paradigmatic entrepreneurs recognized the same weaknesses in the prevailing functionalist, egocentric, approach to organizations. That is our guess. In Kuhn's (1970) terms, then, a multi-faceted paradigmatic revolution occurred, as the weaknesses of functionalism and a closed-system approach to the organization began to become increasingly apparent. Different innovators recognized the fissures, and sought to repair functionalism with an interactionist and constructionist approach, and to repair the egocentric approach with a field orientation. These were not cases of the rise and spread of entirely new institutions. Rather, they were cases of the

contemporaneous embrace of existing theoretical approaches by multiple nascent paradigms. Perhaps reinforcement and learning are better terms for describing this process than diffusion or institutionalization.

Similar weaknesses in the functionalism and behaviorism of the 1950s and 1960s were being addressed by institutional revolutions in other disciplines, and those revolutions surely reinforced these innovations in organizational sociology. Closest at hand was the world polity approach, a macro-institutional theory that John Meyer and his graduate student colleagues developed in response not only to behaviorism, but to the materialist version of world systems theory that was then in vogue. Meyer in collaboration with Hannan (1979), and with several generations of graduate students, explored the global diffusion of new policy regimes, beginning with education and extending to a wide range of issues. In sociology, then, there was a macro institutionalism and an organizational institutionalism.

Meanwhile in political science, the historical institutionalism of Theda Skocpol (1979) and others began to take hold. In their studies, the focus was on how political institutions shaped future possibilities by imposing constraints on policy alternatives, or by opening up policy possibilities (Thelen, 1999; Thelen & Steinmo, 1992). Historical happenstance was the source of the institutional arrangements that affected policy choices. Rational choice institutionalists in American politics challenged behaviorism but not functionalism, by exploring how state institutions influenced congressional voting patterns even among fully rational political actors (see Campbell, 1998; Hall & Taylor, 1996). Stephen Krasner, Terry Moe, and Barry Weingast, in political science at Stanford, were important contributors to this work. In economics, institutionalists built rational theories of behavior generally, and in the case of Oliver Williamson's (1975) *Markets and Hierarchies*, argued that markets and hierarchical organizations like firms are alternative governance structures which differ in their approaches to resolving conflicts of interest. A key prediction, supported empirically, is that the likelihood of economic agents to conduct transactions within firm boundaries increases with the relationship specificity of their assets. A more historical group in economics took the longue durée as the point of departure, seeking to understand how economic institutions evolved (North, 1981, 1990). Avner Greif (2006) in economics at Stanford has emerged as a champion of this approach. These various institutionalisms reinforced one another, despite the fact that their shared antipathy toward behaviorism covered disparate metatheoretical orientations, ranging from hyper-rationalist, in the case of rational choice institutionalism in political science, to radically social constructionist, in the case of world polity and

organizational instituitionalisms. Here as in organizational theory, it is not fair to say that ideas spread from one camp to another; rather, several approaches appeared at about the same time with certain common critiques of behaviorism, and these approaches helped to reinforce one another.

## *Organizational Culture*

The organizational culture paradigm flourished at Stanford, but as Mary Jo Hatch and Joanne Martin observe in their essays in this volume, the earliest pioneers were to be found at MIT and at the University of Massachusetts and in Europe. Culture theorists took very different approaches from one another in the 1980s and 1990s, as Joanne Martin pointed out in 1992. Some focused on the informal and interactional characteristics of organizations. Peters and Waterman's (1982) best selling *In Search of Excellence* suggested that successful companies share a set of common cultural elements that makes them innovative, closer to their customers, and profitable. Others emphasized broad differences across national cultures, as in the case of Graduate School of Business faculty member William Ouchi (1981), whose *Theory Z* described distinctive corporate cultures in the United States and Japan. At the other extreme were ethnographies of individual firms that championed the distinctiveness of their own cultures (Kunda, 1992).

Joanne Martin (1992) charts the variety of approaches taken by culture theorists, and our first thought for the culture section of this chapter was to apply her distinctive organizational culture perspective to the Stanford organizational community. Martin sketches three approaches to culture research, based on existing culture studies. She points out that most researchers look for integration, differentiation, or fragmentation, and that culture can be best understood in terms of all three at once. We thought to apply that model to the Stanford organizational community, but Martin scooped us by using that approach in her chapter in this volume.

We will elaborate, however, on one of her themes: the tension between mainstream cultures and subcultures. In academia, cultures and subcultures exist in universities and colleges, but also in the "invisible colleges" found in disciplines. In the invisible, national (and at times international) college of organizational scholarship circa 1970, there was one mainstream culture, with its stories, routines, practices, and jargon. The dominant culture was functionalist first and foremost and quantitative for the most part. It was connected to the prevailing sociological paradigm, Talcott Parsons' structural functionalism, which dominated the field in the 1950s and 1960s.

The quantitative studies of Peter Blau and colleagues were emblematic. Functionalist assumptions were adapted to fit an open-systems perspective by researchers such as Lawrence and Lorsch (1967) and Thompson (1967).

If there was a subculture in organizational sociology in those days, it was to be found among neo-Marxists. Mills' (1956) *The Power Elite* challenged the managerial view of the firm, suggesting that power not ability was the basis for managerial control of the firm. Harry Braverman's (1974) *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century* challenged mainstream organizational theory to be sure, but from outside of the fold. He was a socialist, not a sociologist. Michael Burawoy was a sociologist, but his *Manufacturing Consent* (1979) challenged the functionalist view of the firm by treating labor power as inevitably coerced rather than exchanged. But it was not this neo-Marxist counterculture that came to displace the dominant functionalist paradigm.

The dominant culture of the invisible college of organizational theory in the 1950s and 1960s mirrored the culture of Parsonian structural functionalism in sociology more broadly. The key idea behind structural functionalism was that social structures evolved to serve functional needs. Social systems in every society had to serve a set of different functions, of adaptation to the environment, goal attainment, social integration, and latency or the capacity to reproduce themselves. If societies had common features, such as religion, it was because those features were needed to fulfill vital social functions. This dominant paradigm had its methodological rituals. There were case studies, but the ritual that was on the rise was the organizational survey with regression analysis relating certain internal characteristics to other internal characteristics.

In organizational sociology, as in business history, the practices of the firm were viewed as fulfilling functional needs. If two firms had similar hierarchical structures, or finance departments, it was because both had functional needs for command and control, or for the means to finance ongoing activities and future growth. Any practice that was widespread must exist because of an internal functional need of the firm. Joan Woodward (1958), for instance, tried to understand the span of managerial control, the number of levels of hierarchy, and the codification of rules as a function of the organization's production technology rather than as a function of the product. Thus in small batch production, a narrow span of supervisory control is needed because production is not routine. In mass production, firms can get away with a bigger ratio of workers to supervisors, and so on.

The four paradigms that flourished at Stanford at first constituted alternative subcultures to this prevailing paradigmatic culture. Over time

they created a new, multiparadigmatic, organizational culture, arguably with its own subcultures.

The four subcultures had their charismatic leaders, as organizational culture theorists predicted they would. Ecology had Mike Hannan at Stanford and John Freeman at Berkeley. Institutional theory had John Meyer and Dick Scott in Stanford sociology, James March with his more political version, and later Paul DiMaggio and Woody Powell, who were together at Yale and who ended up at Princeton and Stanford, respectively. Resource dependence had Jeff Pfeffer at Stanford and Gerald Salancik at the University of Illinois. Organizational culture (as distinct from corporate culture) had John Van Maanen and Edgar Schein at MIT and Joanne Martin and Terrence Deal at Stanford.

They had their origin myths (which we will see in the following chapters) as culture theorists predicted they would. Ecology emerged out of an innovation of two North Carolina doctoral students influenced by Amos Hawley's approach to human ecology. Institutional theory emerged out of the alchemy of Meyer's world polity constructionism and Scott's organizational sociology. Resource dependence theory blossomed when Stanford graduate student Jeff Pfeffer encountered Gerry Salancik when he took his first job at Illinois. Organizational culture theory had roots in social psychology and anthropology, in North America and Europe, and emerged through parallel intellectual processing in that invisible college.

The new countercultural paradigms had their own methodological rituals as well. The ecologists, institutionalists, and resource dependence theorists all challenged the ritual of explaining one internal organizational characteristic in terms of another internal characteristic. In their models, something about the environment explained internal program and structural choices. The organizational culture paradigm challenged the ritual of cross-sectional statistical correlation from the other end of the spectrum, suggesting that organizations have cultures that cannot be discovered through an inventory of practices and structural features. Organizations with identical structures may have very different cultures. As of 1980, these paradigms offered clear countercultures to the dominant culture in the invisible college of organizational sociology. But those countercultures had enough in common, and had a sufficiently coherent critique of the dominant culture, that they came to replace the dominant culture.

Perhaps transforming these theoretically disparate subcultures into a new dominant culture in organizational sociology was easier because the subcultures formed a single culture at Stanford, particularly among graduate students. The NIMH pre-doctoral and post-doctoral fellows

created an esprit de corps among the ranks, and brought people from different groups together for regular discussion. The annual conferences at the Asilomar facility in Monterey, California, created a chance for bonding and intellectual cross-fertilization. A community of 100 strong met together in scholarship and fellowship, for days of debate and nights of bonding. There and in the seminars we developed an organizational culture, described fully in the chapters that follow. If Stanford's organizations community created an organizational culture of its own, Peters and Waterman's title, "In Search of Excellence" aptly describes what that culture was about. We felt we were part of a renaissance in organizational theory that challenged the status quo with a range of rich new theories.

## CONCLUSION

Learning theory, garbage can theory, cooperation theory, network theory, organizational stratification – beyond the four theories we have focused on here, there was a cornucopia of organizational theories represented at Stanford in the years between 1970 and 2000. To this day there is an active, dynamic, group of organizational scholars working there. Stanford probably continues to have the greatest density of organizational scholars in the world, though it has competition from some of the other organizational centers that Dick Scott assembled into a national cabal, including the Universities of Michigan, Minnesota, Pennsylvania, and Texas.

The essays that follow are grouped into four sections. First is the section on "Theories" which describes the primary paradigms that emerged at Stanford. The essays in this section are authored by the former Stanford Ph.D. students who worked directly on the development of the paradigms they discuss. Some essays focus on specific theoretical paradigms, whereas others describe approaches applied to specific research areas, such as labor markets and health care. Next are observations by Stanford faculty who participated during the prime years of the Organizations Research Training Program and who contributed substantively to the theoretical ideas that developed between 1970 and 2000. This section would be even more representative had it included the considerable wit of the late Gene Webb and the genial thoughtfulness of the late Hal Leavitt. Both were pillars during the early period of the community's development. Then we have a robust section of observations by many of the pre-doctoral and post-doctoral students resident during the program, augmented by remarks by Howard Aldrich, a visiting professor during the very first 12 months of the

program who taught many of us. In issuing invitations to former students and post-docs, we did our best to put together a representative sample of theories, departments, and eras. Limitations of space prevented us from inviting everyone who spent time at Stanford as a student or post-doc. The volume concludes with the chapter, "Collegial Capital: the Organizations Research Community at Stanford, 1970–2000," by W. Richard Scott. Dick's energy and intelligence enabled the development of Stanford's organizational community and his wisdom (yes, with much assistance he will remind us all) helped guide its evolution over the 30-year period.

The chapters to come display a fascinating array of insights about the dynamics underlying Stanford's organizational community. We have resisted the temptation to preview them, in part because the sheer number of contributions would make for a dizzying preview, but also because we believe each is best read fresh out of the box. That leaves us only the task of thanking the contributors and facilitators. Many thanks to the more than two dozen contributors for keeping (more or less) to a production schedule and for writing thoughtful, provocative, interesting, and often witty contributions. It was our hope to produce a volume that would be of interest well beyond the Stanford community, and contributors have worked hard to achieve that goal. We are particularly grateful that contributors responded quickly and thoughtfully to our suggestions for revision. Thanks to Michael Lounsbury who, despite not being a Stanford alum himself, as series editor endorsed the project and shepherded it through with enthusiasm and grace. Thanks to Marc Ventresca for being an early and vocal champion of the project. Thanks to Laura Thomas for cheerfully dunning authors and putting the manuscript together. Thanks especially to Dick Scott for providing historical detail and documents key to the project and for doing double duty by writing a reflection on his experience and a wonderful concluding chapter.

## REFERENCES

Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise on the sociology of knowledge.* Garden City, NJ: Doubleday.

Braverman, H. (1974). *Labor and monopoly capital.* New York: Monthly Review.

Burawoy, M. (1979). *Manufacturing consent: Changes in the labor process under monopoly capitalism.* Chicago: University of Chicago Press.

Callon, M. (1998). Introduction: The embeddedness of economic markets in economics. In: M. Callon (Ed.), *The laws of the markets.* Oxford: Blackwell.

Campbell, J. L. (1998). Institutional analysis and the role of ideas in political economy. *Theory and Society, 27*, 377–409.

Carroll, G. R., & Hannan, M. T. (1989). Density dependence and the evolution of populations of organizations. *American Sociological Review, 54*, 524–541.

Carroll, G. R., & Swaminathan, A. (2000). Why the microbrewery movement? Organizational dynamics of resource partitioning in the US brewing industry. *American Journal of Sociology, 106*, 715–762.

Clark, B. R. (1960). *The open-door colleges: A case study*. New York: McGraw Hill.

Cohen, M. D., March, J. G., & Olsen, J. P. (1972). A garbage can model of organizational choice. *Administrative Science Quarterly, 17*, 1–25.

Crane, D. (1972). *Invisible colleges. Diffusion of knowledge in scientific communities*. Chicago: University of Chicago Press.

Dornbusch, S. M., & Scott, W. R. (1975). *Evaluation and the exercise of authority*. San Francisco: Jossey-Bass.

Evan, W. M., & Zelditch, M., Jr. (1961). A laboratory experiment on bureaucratic authority. *American Sociological Review, 26*, 883–893.

Greif, A. (2006). *Institutions and the path to the modern economy: Lessons from medieval trade*. Cambridge: Cambridge University Press.

Hall, P. A., & Taylor, R. C. R. (1996). Political science and the three new institutionalisms. *Political Studies, 44*, 936–958.

Hannan, M. T., & Freeman, J. H. (1977). The population ecology of organizations. *American Journal of Sociology, 72*, 267–272.

Hannan, M. T., & Freeman, J. H. (1989). *Organizational ecology*. Cambridge, MA: Harvard University Press.

Kuhn, T. (1970). *The structure of scientific revolutions*. Chicago: University of Chicago Press.

Kunda, G. (1992). *Engineering culture: Control and commitment in a high-tech corporation*. Philadelphia: Temple University Press.

Lawrence, P., & Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Boston: Harvard Graduate School of Business Administration.

Martin, J. (1992). *Cultures in organizations: Three perspectives*. New York: Oxford University Press.

Meyer, J. W., & Hannan, M. T. (Eds). (1979). *National development and the world-system: Educational, economic and political change, 1950–1970*. Chicago, IL: University of Chicago Press.

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology, 83*, 340–363.

Mills, C. W. (1956). *The power elite*. New York: Oxford University Press.

North, D. (1981). *Structure and change in economic history*. New York: Norton.

North, D. (1990). *Institutions, institutional change and economic performance*. New York: Cambridge University Press.

Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review, 16*, 145–179.

Ouchi, W. G. (1981). *Theory Z: How American business can meet the Japanese challenge*. Reading, MA: Addison-Wesley.

Peters, T. J., & Waterman, R. H. (1982). *In search of excellence*. New York: Harper & Row.

Pfeffer, J., & Cohen, Y. (1984). Determinants of internal labor markets in organizations. *Administrative Science Quarterly, 29*, 550–572.

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective.* New York: Harper and Row.

Powell, W. W. (1990). Neither market nor hierarchy: Newtork forms of organization. In: L. L. Cummings & B. Shaw (Eds), *Research in organizational behavior* (pp. 295–336). Greenwich, CT: JAI.

Schutz, A. (1970). *On phenemonology and social relations.* Chicago: University of Chicago Press.

Scott, W. R. (1981). *Organizations: Rational natural and open systems.* Englewood Cliffs, NJ: Prentice Hall.

Selznick, P. (1949). *Tva and the grass roots.* Berkeley, CA: University of California Press.

Selznick, P. (1957). *Leadership in administration: A sociological interpretation.* New York: Harper and Row.

Simmel, G. (1964). *The sociology of Georg Simmel.* New York: Free Press.

Skocpol, T. (1979). *States and social revolutions: A comparative analysis of France, Russia, and China.* New York: Cambridge University Press.

Thelen, K. (1999). Historical institutionalism in comparative politics. *Annual Review of Political Science, 2,* 369–404.

Thelen, K., & Steinmo, S. (1992). Historical institutionalism in comparative politics. In: S. Steinmo, K. A. Thelen & F. Longstreth (Eds), *Structuring politics: Historical institutionalism in comparative politics* (pp. 1–32). New York: Cambridge University Press.

Thompson, J. D. (1967). *Organizations in action.* New York: McGraw-Hill.

Tirole, J. (1988). *The theory of industrial organization.* Cambridge, MA: MIT Press.

Tuma, N. B., & Hannan, M. T. (1984). *Social dynamics: Models and methods.* New York: Academic.

Williamson, O. E. (1975). *Markets and hierarchies: Analysis and antitrust implications.* New York: Free Press.

Woodward, J. (1958). *Management and technology.* London: Her Majesty's Stationery Office.

Zald, M. N., & Denton, P. (1963). From evangelism to general service: The transformation of the YMCA. *Administrative Science Quarterly, 8,* 214–234.

Zucker, L. G. (1977). The role of institutionalization in cultural persistence. *American Sociological Review, 42,* 726–743.

Zucker, L. G. (1989). Combining institutional theory and population ecology: No legitimacy, no history. *American Sociological Review, 54,* 542–545.

Zuckerman, H., & Merton, R. K. (1972). Patterns of evaluation in science-institutionalisation, structure, and functions of referee system. *Sociological Review, 20,* 258–260.

Frank Dobbin
Claudia Bird Schoonhoven
*Editors*