

# The Typical Tools for the Job: Research Strategies in Institutional Analysis\*

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*Institutional theory rests on a rejection of reductionism. Instead of reducing higher-order phenomena to aggregates of behavior, institutional theory reverses this causal imagery. It attributes the behavior of organizations and nation-states to contextual factors, notably organizational fields, national institutional systems, or the emerging global polity. Institutionalists, particularly within sociology, also emphasize specifically cultural mechanisms for these higher-order effects. This article develops the methodological foundations for these claims. It surveys and elaborates research designs for documenting higher-order effects and for differentiating the cultural mechanisms of institutional influence. It also presents new strategies for assessing multiple logics and the coherence of institutional orders, moving beyond adoption and diffusion studies to analyze the dynamic and contested processes of institutionalization and institutional change.*

A rejection of reductionism lies at the core of institutional theory. The behavior of actors—whether individuals or other social entities—is attributed not to the characteristics or motives of that entity, but to its context or to higher-order factors. Thus, individual action derives from scripts or schemas drawn from shared cultural systems. Firm behavior and attributes are shaped by the organization of industries, fields, or national polities. The policies of nation-states are reactions to a world polity rather than to national-level factors such as economic development or political conflict. Instead of reducing higher-order phenomena to aggregates of behavior, institutional theories reverse this causal imagery.

This theoretical stance poses methodological challenges. Many standard research designs in the social sciences trace their lineage to behaviorism and microeconomics. Consequently, they embody a commitment to methodological individualism or actor-centered analyses. Institutional theory, however, requires research designs that link levels of analysis. The first methodological challenge for institutionalists is to compare the explanatory power of factors at the same, or lower, level of analysis as the entity in question with the explanatory power of external or higher-order factors.

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As our review of empirical research by self-identified institutionalists within organizational analysis and political sociology suggests, this challenge has been met with considerable inventiveness and has generated results with impressive cumulative force.

Institutional theory, however, involves more than a claim about the relation of entities at different levels of analysis. Particularly within sociology, institutional arguments frequently entail a distinctive model of action and set of mechanisms. In contrast to the realism that informs much of social science, sociological institutionalism asserts that both individual actors and collectivities are “as much the embodiment of the prescriptions of the available cultural forms as they are the aggregation of lower-level units and interests” (Meyer, Boli, and Thomas 1994:15). Recognizing actors as socially constructed, sociological institutionalism then interprets action as shaped by available scripts or “the taken-for-granted . . . organizational forms and practices” (DiMaggio 1988:4). This understanding of action contrasts with “new institutionalisms” within political science (nested within either rational choice theory or political history) and economics, neither of which emphasize culture or cognition. Instead, both these approaches retain strategic or utility-maximizing models of action, modified by the recognition that formal laws, shared understandings, and sunken investments may constrain, channel, or lock-in that action (Powell and DiMaggio 1991:2–11; Scott 1995:34–52; Steinmo et al. 1992:2–10; Meyer and Jepperson 2000).

In some cases, these political and economic approaches may be empirically indistinguishable from sociological institutionalism, particularly insofar as utility-maximizing rationality is understood as a cultural construction (Espeland 1998; Porter 1995). Yet to date, less energy has been directed toward distinguishing among institutional mechanisms than in demonstrating associations across levels of analysis. As we elaborate below, it is not at all easy to adjudicate between “institutions as constraints on action” and “institutions as culturally constitutive of actors.” Limitations of research design are partially responsible, signaling a need to revisit some fundamental claims of institutional theory.

In this article, we survey how theory has been translated into research practice, and with what results. In the spirit of this school of thought, we proceed by level of analysis, first considering the large body of work on the relation of world culture or polity to national policies, then turning to research on the relation of organizational fields to firms. Across these levels of analysis and substantive topics, institutionalist research designs must confront three core challenges: capturing the influence of higher-order factors on lower-level entities, identifying specific institutional mechanisms, and assessing rather than assuming coherence. While the first of these challenges has been met with considerable success, the second has proven less tractable. The research literature amply documents higher-order effects, but these effects cannot be taken as conclusive evidence of the cultural or cognitive models of action that figure prominently in programmatic statements of institutionalist theory (see Abell 1995). Meeting the third challenge—the analysis of coherence and heterogeneity—will be critical for explaining institutional reproduction and change.

Whereas many standard research designs pit institutionalist models against variants of economic or technological determinism, a stronger case for institutional theory requires more direct investigation of how alternatives are culturally constituted, how choices among alternatives are contested or justified, and the processes by which the range of “thinkable” alternatives expands and contracts over time and across settings. By appropriating institutional theory, historical and cultural analyses have begun to produce new measurement strategies and research designs that effectively address these issues. These research strategies point beyond studies of institutional

adoption and diffusion toward analyses of the dynamic and contested processes of institutionalization and de-institutionalization.

## WORLD POLITY AND NATIONAL POLICY

While technically incorrect, the claim that no nation is an island captures the fundamental insight of the work of John W. Meyer and his many colleagues. Initially formulated in studies of schooling, this claim stems from two observations. First, enrollment rates and educational policies are unexpectedly uniform across both individual schools and nations. Second, cross-national studies find weak or no associations between these formal policies and the functional demands of national economic development. The major substantive conclusion of these early studies was “that the propositions specifying national structural characteristics that produce educational expansion receive little empirical support” (Meyer et al. 1977:251).

These early findings have given rise to a research program that reflects the complex character of the core theoretical contention:

Worldwide models define and legitimate agendas for local action, shaping the structures and policies of nation-states and other national and local actors in virtually all of the domains of rationalized social life—business, politics, education, medicine, science, even the family and religion. The institutionalization of world models helps explain many puzzling features of contemporary national societies, such as structural isomorphism in the face of enormous differences in resources and traditions, ritualized and rather loosely coupled organizational efforts, and elaborate structuration to serve purposes that are largely of exogenous origins. (Meyer et al. 1997:145).

This contention suggests four topics for empirical research: the development of the world polity or culture; the association of the world polity or culture with national policies or structures (predicted to be significant); the association of the structures and policies of nation-states with national economic or social characteristics (predicted to be not significant); and the extent of “de-coupling” between these national structures or policies and the work that actually gets done by national governments. The second and third topics, typically addressed together, have generated the majority of empirical findings. The development of the world polity or culture itself is only recently emerging as a more prominent topic of inquiry; claims about the “de-coupling” of national structures or policies and their implementation or consequences have been largely untested until recently.

Addressing the associations among world developments, national characteristics, and national policies, this research tradition has generated four standard designs to document the effect of the world polity on national policy and structure (see Table 1). The first may be characterized as an “imputed effects” strategy that accommodates the troubling fact that most data available to political sociologists are collected at the national level. Consequently, this strategy combines demonstrations of no association between *national* policies and *national-level* economic, political, or social factors with the findings of parallel policy developments or convergence across nations (e.g., Meyer et al. 1977; see also Ramirez and Ventresca 1992:56; but see Campbell 2004; Carruthers and Halliday forthcoming). The “imputed effects” strategy builds on a claim about world history: as the world polity has become more elaborated, institutional effects should increase and the explanatory power of national characteristics

Table 1. Measuring Effects of World Culture on Nation-States

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1. **Imputed Effects Strategies** demonstrate the *absence* of associations between national-level factors and the policies or structures of the nation-state, and the *presence* of:
    - a. Decreasing variance among nation states or the convergence of nation-states on a common, form or feature
    - b. Marked inflection at the same point in time in the adoption rates for a policy or structural feature across different types of nation-states
    - c. Pattern of adoption consistent with a common source diffusion process
  2. **Global Events Effect Strategies** demonstrate associations between global developments and national policies or structures. Developments are measured by:
    - a. The number of international organizations existing or founded in a period
    - b. The promulgation of norms, conventions, or models by international organizations
    - c. The number of nations that have already adopted a structural feature or policy
  3. **Global Linkage Effect Strategies** demonstrate associations between linkage to world culture and national policies. Linkage is measured by:
    - a. Membership in international organizations and/or number of memberships
    - b. Incorporation of global models or culture via ratification of international conventions or prior adoption of policies or structures endorsed by global culture
    - c. Location in world system
    - d. Ties to prior adopters
  4. **Period Specific Strategies** demonstrate that the effects of global versus nation-level factors shift across time periods.
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should decrease. This argument is supported by findings that rates of adoption or “entry into the world system” change over time. For example, the rate at which nations adopted transnational standards of educational data reporting was found to be 10–15 percent per decade until World War II, after which it jumped dramatically, quickly exhausting the available cases (Meyer, Ramirez, and Soysal 1992). Therefore, whereas the *absence* of a sharp upward inflection in national educational enrollments at the time of national independence was taken as evidence of the absence of an effect of national polity characteristics (Meyer et al. 1977:252–53), the *presence* of an inflection in the trendline across nations is taken as evidence of a world-level institutional effect.

The power of this argument lies in the absence of association between national characteristics and national policies. Its weakness stems from the absence of direct data on world-level factors and linkages. Subsequently, this research program has sought to measure transnational factors and to document their association with national policies or structures. These efforts have generated a second standard research design that correlates “global events,” such as the ratification of a major U.N. treaty, and the adoption of policies by nation-states. History informs this design: over the 20th century, and particularly after World War II, a developing transnational polity or world culture has become an increasingly legitimate source of moral claims and cognitive models that influence the adoption of policies and structures by

nation-states. The development of this world polity may be captured by the creation of international bodies or monitoring agencies, the number or size of those bodies, and the adoption by those bodies of resolutions and standards that articulate global moral order (McNeely 1995; Strang 1990; Boli and Thomas 1997; Drori et al. 2003). The strength of a peer community that exerts pressure for conformity or increases exposure to that order may also be captured by the number of states (overall or within a subclass) that have adopted a policy or by the cumulative number of international resolutions, ratifications, or treaties (Strang 1990; Jang 2000; Frank, Hironaka, and Schofer 2000). This last strategy highlights the mimetic processes central to many institutionalist accounts by focusing on the subsets of nations that serve as peers or exemplars for a particular nation (Strang and Meyer 1994).

The core claim addressed by a “global events” design is that world-level events and developments have national-level effects. International organizations embody legitimate models for nation-states and enforce or monitor compliance to global norms (Jang 2000; Boli and Thomas 1997; Bartley 2003). Nations ratify international treaties or conventions because conformity to a transnational standard is a source of legitimacy (Soysal 1994). This argument need not imply direct ties between nation-states and the world polity; nations may simply monitor the world scene and discern shifts in the consensus on “what a proper nation should look like.” However, international conventions may take on a compulsory character when membership is required as a prerequisite for access to transnational arenas or resources (McNeely 1995; Strang and Chang 1993).

Many recent studies go beyond correlating world- and national-level events to measure the ties of specific nations to the world polity, with the expectation that nations with such ties are more likely to conform to the model legitimated by the world polity. One variant of this “global linkage” strategy uses membership in transnational organizations. Thus, McNeely (1995) finds that nations that belong to UNESCO were more likely to have educational policies consistent with the UNESCO constitution. Extending this strategy, Frank, Hironaka, and Schofer (2000) find that increasing the *number* of memberships states hold in international environmental organizations increases the likelihood that states will adopt environmental impact laws, create national parks, and otherwise conform to global models of a responsible, environment-regarding polity. A second variant measures the extent to which nation-states endorse (e.g., by ratifying international conventions) or incorporate the norms of the developing world polity. The third variant of “global linkage” uses the structural location of a nation within the world polity—core versus periphery, geographical proximity, geopolitical or imperial connections—to capture a nation’s vulnerability or exposure to transnational models and their need for external legitimacy (McNeely 1995; Meyer, Ramirez, and Soysal 1992; Strang 1990). A final variant of this strategy focuses on horizontal networks of connections of potential adopters to prior adopters, arguing that trade and other relations among nations tie potential adopters into an emerging global community (Guler, Guillen, and MacPherson 2002).

Conceptually, measuring direct ties across levels of analysis invokes metaphors of exposure and infection. This imagery has been further refined through measures of national polities that address the susceptibility of nations to world-level developments. One such strategy is pursued by Strang and Chang’s (1993) analysis of the International Labor Organization (ILO), which specifies *why* nations conform to international conventions. Conventions “offer a script or model that actors can draw upon to design policy”; they “provide reasons for action, an often neglected function of norms”; and they “symbolically move policies out of the realm of zero-sum,

partisan politics and into the realm of fundamental, universally recognized rights” (1993:242, 243). This study offers a theory of national susceptibility to world events: “ILO ratification has a smaller impact when prior levels of welfare expenditure are high, where leftist parties rule, and where centralized employer and labor federations are formally incorporated into policymaking; its impact is larger where parties of the right are in power” (1993:252). Although framed in terms of institutional diffusion from world to national polities, the results underscore the need for closer attention to interaction across levels of analysis and to the politics of institutional diffusion.

These concerns have inspired elegant studies that integrate multiple strategies for capturing the effects of world-level processes on national polities. Analyzing decolonization between 1870 and 1987, Strang (1990) uses an event-history model to incorporate global-level events (hegemony, economic expansion, a U.N. declaration), ties to other nations and colonies (imperial diffusion, regional diffusion) as well as the characteristics of both the metropolitan nations (naval capacity, metropolitan suffrage) and the political dependencies (population, trade, representative institutions, settler majority, settler minority). Returning to the imagery of epidemiology, this model captures the character of the infectious agent (world polity), exposure (ties between dependencies and metropolitan nations or world polity), and the susceptibility of the dependencies themselves.

A final standard design for documenting world-polity effects taps the time-dependent nature of institutional causation through “period-specific modeling strategies” that allow the effects of variables to vary over time. These strategies extend general claims about institutionalization (Tolbert and Zucker 1983) to world polity arguments about the rise of a global moral order after 1945. National-level factors may determine nation-state structure and policy *before* the global order and its models of nationhood were fully institutionalized. However, the consolidation of a global order after 1945 subjected nations to systematic global-level pressures that increasingly dominated national-level outcomes—and transformed the causal relations at work in the nation-state. Thus, coefficients capturing global-level factors will become significant and/or increase in magnitude over time, while coefficients for national-level factors will diminish in magnitude or become insignificant.<sup>1</sup>

Taken as a whole, this research tradition impressively demonstrates the effect of global events or linkages on the adoption of policies and institutional structures by nation-states. The frequent absence of significant associations between policy outcomes and national-level factors provides a powerful corrective to long-dominant forms of theorizing in political sociology and a persuasive argument that the explanation of national polities requires an “open systems” approach. Yet a hammer designed specifically for one task may prove less than optimal as an all-purpose tool. Standard research strategies are much more attuned to the covariance of factors than to the processes that underlie the production of institutional effects (Scott 1995:64–66), particularly the dynamics of “imitation and innovation” through which transnational models are instantiated in national settings (but see Westney 1987; Hironaka and Schofer 2002). Too often, evidence of higher-order effects is presumed

<sup>1</sup>World polity research measures the time-dependent effects of global and national-level factors either by constructing variables that interact factors with time periods (Meyer, Ramirez, and Soysal 1992) or by fitting multiple models to the data (Strang 1990; Jang 2000). The multiple model variant determines whether or not effects of key factors vary over time in two steps. First, it divides history into periods that reflect the absence and emergence of a global regime or moral order. It then fits separate regression or event-history models of national-level outcomes for each period (for a broadly similar strategy for treating periodicity and period-contingent effects, see Isaac and Griffin 1989).

to document the influence of a specifically *cultural* institutional mechanism. Culture, cognition, and legitimation figure prominently in theoretical discussion, but political structures are often used to indicate the degree of incorporation of world culture. To the extent that “logics of appropriateness” distinguish sociological institutionalism from other “institutionalisms,” more powerful demonstration of institutional effects requires measurement strategies that adjudicate among institutional mechanisms with greater precision.

Surveying world polity research, one finds much less work on the construction of world culture or the politics of establishing models/legitimizing rules within the world polity. When such questions are addressed, the appropriate research strategy is less certain (e.g., Boli and Thomas 1997) and the insistently cultural language of the “diffusion of a Western cultural myth” is modified by recognition of the role of power and politics in transnational associational life (Meyer 1999; Meyer et al. 1997). A second set of questions, asked only recently, appears if one looks beyond the moment of adoption of a “legitimate” policy or institutional structure to address the consequences of adoption (Drori et al. 2003). This question is often truncated by the invocation of “de-coupling,” but it is worth asking “what are the substantive implications of these institutional effects?” To the extent that standard research designs fail to address questions of the consequences of institutional diffusion, they are left open to the charge that institutional effects will be most pronounced in situations that are, among other things, “of relatively little consequence” (Abell 1995:12). Fortunately, research on organizational fields has more directly addressed the implications of institutional conformity for organizational survival.

### INSTITUTIONAL EFFECTS IN ORGANIZATIONAL FIELDS

In fractal fashion, the pattern of research at the levels of world and national polities repeats in the literature on institutional processes within organizational fields. Here again, researchers take higher-order “institutions” as the independent variable, seeking to explain patterns of diffusion across organizations (or subnational political units) and, in an important extension, the consequences of adoption for organizational survival. Many of the same research strategies are also used: an imputed effects strategy that documents convergence across organizations; a field-level events strategy that explores associations between higher-level events such as the passage of a law and organizational outcomes; and linkage strategies that address the ties of organizations to fields through professionals, corporate boards, or the interdependence of suppliers and purchasers. But in this literature, researchers pay more attention to linkage models, to the complexities of context and time, and to the effects of institutionally driven adoption on organizational survival.

To document institutional effects in interorganizational fields, a handful of studies have used an imputed effects strategy demonstrating both convergence across organizations over time (captured as a decrease in variation) and an absence of association with organizational traits (e.g., Meyer et al. 1994). They measure structural features of school (e.g., staffing), then calculate a coefficient of variation for each structural feature across schools within each period, and observe decreases in structural variation over time. This design may also incorporate lagged measures of spending and staffing in order to test arguments for path dependence that characterize institutional research in political history.

This research literature also draws on “field events” models to characterize the normative orders within institutional fields. One common approach uses dummy

variables to index periods before and after the passage of a law or new regulatory policy (Edelman 1990, 1992; Mezas 1990; Sutton and Dobbin 1996), or less commonly, numbers of court cases over time to tap the crystallization of a particular legal interpretation or compliance strategy (Kelly and Dobbin 1999). Also echoing the world polity literature, a second approach uses the number or proportion of firms that have already adopted a particular model or policy to capture the emergence or crystallization of interorganizational fields (Fligstein 1991; Palmer et al. 1993; Rao and Sivakumar 1999). This line of research more directly raises questions of “who is visible to this organization?” or “who are this organization’s peers?”

These questions have driven methodological advances. Patterns of mutual orientation will generate subjectively defined fields through judgments of similarity (who are my competitors? my equivalents? see Lant and Baum 1995; Galaskiewicz and Burt 1991; Fligstein 1990; Strang and Meyer 1994; Strang and Soule 1998) or through judgments of aspiration (who provides models for success? see Haveman 1993; Sahlin-Andersson 1996). The decision to examine institutional effects within a single industry, among Fortune 500 firms or across major firms in Minneapolis, rests on *researchers’* judgments concerning the categories of relevance for those organizations included in the analysis. In the absence of direct evidence of how organizations construct reference groups or monitor other organizations, analysts initially defined fields broadly by industry type, organizational population, or geographical proximity. More recently, however, researchers have addressed the effects of prior adoption within social, cultural, or administrative categories constituted by participants themselves, arguing that diffusion and other institutional effects operate most powerfully within these membership or peer subcategories (for a parallel in world polity research, see Strang 1990). In her study of divestment of South Africa-related stocks by colleges and universities—which identify themselves as research universities or liberal arts colleges, as more or less highly ranked, and so on—Soule (forthcoming, emphasis added) finds “that organizations monitor what other, *similar* organizations are doing and follow suit in an effort to ensure their own legitimacy.” The effects of prior adoption occur most strongly within peer subgroups, or what Washington and Ventresca (2004) term “field segments” (also Soule and Zylan 1997).

To be sure, constructing more direct measures of monitoring and evaluation would substantially strengthen institutionalists’ claims about these mechanisms and effects: including such measures should weaken or wipe out the effects of peer or membership categories. But although measures of monitoring are rare, institutional research on organizational fields is notable for elaborating how organizations are linked to fields. It has developed new strategies for using contextual analysis that attend to both the multi-level structure of fields and to the roles of time or contingency. And along with increasingly refined characterizations of the structure and history of fields, researchers have been pushed by a lively—sometimes heated—engagement with population ecology to look beyond adoption to the effects of conformity to a legitimated model on organizational survival and behavior. To the extent that multi-level dynamics, history, and ecological processes create more or less coherence within organizational fields, they also shape the trajectories for future patterns of change.

### *Measuring the Linkage of Organizations to Fields*

The measurement of linkages between organizations and fields entails diverse claims about the mechanisms that produce institutional effects. This variety is documented by Table 2. Here again, the logic is one of exposure or influence and is compatible



Table 2. Measuring Linkages Between Institutional Fields and Organizations

**1. Direct Ties to Field Level Bodies**

- a. Membership in a field level organization (e.g., a personnel association)
- b. Resource dependence on field-level organizations (e.g., federal contracting, proportion of stock owned by institutional investors)
- c. Business relation with member of a policy faction in a rule-making body

**2. Certification, Accreditation, or Legitimation by Institutional Authority**

- a. Certification (e.g., listing in referral directory; registration; licensing)
- b. Number of direct ties with legitimated institutions (e.g., church; state agency responsible for inspection)
- c. Cumulative number of certifications by institutional authorities

**3. Connections to, or Conduits for, Institutional Models**

- a. Density of interlock ties to peers and adopting peers
- b. Personnel as carriers or advocates of institutionalized models (e.g., retention of a labor lawyer, CEO background or elite graduate school degree, managerial turnover)
- c. Structural location for institutionalized model (e.g., personnel department)

**4. Proximity, Visibility, or Vulnerability to Institutional Pressure**

- a. Centrality within field (e.g., public, private, or nonprofit status) or location within a particular regulatory regime (e.g., by industry or state)
- b. Visibility within field (e.g., organizational size, number of financial analysts observing firm, centrality or size of board) or legitimacy to external observers (e.g., nonprofit status, size or composition of board of directors)
- c. Vulnerability (e.g., dependence on financial or nonfinancial institutions, performance problems or variability, target of social movement activity)

with coercive, normative, and mimetic interpretations of institutional effects. The first variant measures direct linkages to field-level associations or regulatory bodies, paralleling the measures of membership in the world polity literature. Thus firms that belong to personnel associations are predicted to be more likely to adopt certain personnel policies (Dobbin et al. 1994); firms with federal contracts should be more likely than firms without such contracts to resemble public agencies and incorporate the normative “elements of the public legal order” (Edelman 1990:1428, 1992); firms whose stock is held by institutional investors or public pension funds may be more likely to adopt policies recognizing shareholder rights (Davis and Thompson 1994; Rao and Sivakumar 1999); and those tied to accounting firms with public positions on the inappropriateness of certain techniques will be less likely to adopt them (Mezias 1990).

A second linkage strategy focuses on the accreditation or certification of organizations by state agencies or interorganizational entities. The institutional mechanism captured by this measure involves external legitimacy; linkages or certificates confer legitimacy, guarantee quality, or identify the organization as exemplary in some respect. For example, Singh, Tucker, and House (1986) find that listing in a community directory and formal registration as a charity decreased the odds of organizational death among voluntary social service agencies. Baum and Oliver (1992) construct a measure of “relational density” between day care providers and their

institutional environment (both government and community) based on the number of purchase-of-service and site-sharing agreements. Examining “certification contests” in the early U.S. automobile industry, Rao (1994) found that the cumulative number of victories in sponsored races was associated with organizational survival in an industry where two attempts to form trade associations had failed.

A third linkage strategy draws on political economy, using corporate interlocks among firms to measure connectivity between prior adopters and organizations still at risk. Connections also capture the flow of information and the coercive aspects of interorganizational dependence. Palmer et al. (1993) include both direct and indirect interlocks, finding that indirect ties to multi-divisional firms increased the odds of adopting that form (see also Galaskiewicz and Wasserman 1989; for a critical argument, see Galaskiewicz and Burt 1991). Examining only direct interlocks, Rao (1998) found significant effects on the adoption of investor relations departments by Fortune 500 firms.

Related studies of connectivity within fields highlight the role of particular types of actors as carriers of, or advocates for, organizational models. These measures invoke a mechanism that combines socialization with transmission: personnel professionals promote models of employee relations that differ from the models promoted by labor lawyers (Dobbin et al. 1994; Edelman 1990; Sutton and Dobbin 1996). The role of CEOs as carriers of organizational models has also been explored: a background in sales, finance, or production is associated with the adoption of new forms or policies (Fligstein 1991; Palmer et al. 1993), the presence of a CEO trained at a top business school predicts the adoption of new practices endorsed by managerial elites (Palmer et al. 1993), and management turnover indicates the inward flow of new models (Mezias 1990). Contracting with consultants is likewise a conduit for the flow of new models; ties to benefits or human relations consulting firms increase the likelihood that employers will adopt child care policies and centers (Kelly 2003). Recognizing an intermediate state of internalization, research also finds that that adoption is associated with the presence of specialized subunits (e.g., personnel departments, benefits offices, or social movement chapters) that provide a strategic platform for intra-organizational politics (see Edelman 1990; Lounsbury 2001; Kelly 2003).

The fourth line of elaboration concerns not simply the links of organizations to fields but also susceptibility or the likelihood that organizations will be influenced by these ties. In the case of laws or formal regulations, both Edelman (1990) and Dobbin et al. (1988) have argued that public agencies will be subjected to the strongest normative expectations of conformity to law, then nonprofit agencies, then private firms. Variations in vulnerability may also stem from the economic condition of the firm, either its dependence on financial and nonfinancial institutions (Palmer et al. 1993), performance variability (Rao and Sivakumar 1999), or top management turnover (Raeburn 2004). They can stem, as well, from political and legal conditions, including the presence within firms of groups with leverage to demand or exploit particular policies (Kelly 2003), and whether an employer was already a target of a lawsuit (Edelman, Uggen, and Erlanger 1999). Finally, attributes of organizations may make them more visible to other actors in the field, presumably increasing the possibility that they will be subject to external pressure for conformity to established models of organization. Organizational size (Edelman 1992; Dobbin et al. 1988), the extent of oversight by financial analysts (Rao and Sivakumar 1999), and the centrality of a firm in the network of corporate directors (Davis and Greve 1997) all capture this sense of visibility to sources of pressure for institutional conformity.

In developing more refined measures of the linkage of fields and organizations, these analyses cumulate to confirm one of the fundamental expectations of institutional theory: “organizational fields provide a context in which individual efforts to deal rationally with uncertainty and constraint often lead, in the aggregate, to homogeneity in structure, culture and output” (DiMaggio and Powell 1983:147). Yet by directly modeling the interaction of external factors and organizational traits and the configuration of multiple possible outcomes, recent studies establish that under certain conditions, institutional factors may produce increases in heterogeneity, not homogeneity, across organizations within a field. In a study of hospitals providing inpatient psychiatric care, for example, Schlesinger (1998) finds that increases in institutional pressures (e.g., from regulation or professionalization) may amplify *differences* across public, for-profit, and private nonprofit providers, rather than producing the increased homogeneity frequently predicted by institutional theory (see also D’Aunno, Sutton, and Price 1991; Milstein, Hart, and York 2002; Schneiberg 2006; Baum forthcoming; Greenwood, Hinings, and Cooper forthcoming). To the extent that these studies foreground the fragmented character of fields, competing logics, or the availability of alternative templates, they foreshadow the importance of heterogeneity for more dynamic analyses of institutions and change.

#### *Extending Contextual Analysis I: Fields as Segmented or Multi-Level Structures*

While important for developing particular measurement strategies, research on organizational fields is also noteworthy for two additional designs that link levels of analysis to capture institutional effects. Both designs elaborate the core contextual insights of institutional analysis, albeit in different ways. Moreover, both approaches combine the attention to historical processes and complexity demanded by historians with the systematic analyses and rigor demanded by organizational researchers.

The first approach treats higher-order institutions as complex phenomena, and uses that conception to revise institutional arguments about susceptibility, infectiousness, and diffusion. Here, researchers emphasize the *segmented* or *multi-level* character of fields: they reject the notion that models, templates, and forms diffuse or have effects uniformly across organizational fields, arguing instead that fields and models emerge and diffuse in an uneven, lumpy fashion. They then use heterogeneous diffusion models developed by Strang and his colleagues (Strang and Tuma 1993; Strang and Soule 1998) to trace how complexly structured fields subject organizations to differentiated and multiple effects.

Relatively novel, this approach has substantial flexibility and potential for shedding new light on institutional fields and their effects. Davis and Greve (1997), for example, address the segmented character of the changing field of corporate governance in their analysis of poison pills and golden parachutes in the 1980s. In their study, field-level changes and the rise of new communities of practice indexed by legal measures and prior adoption had differential effects across firms: new practices and standards crystallized and diffused among *socially proximate* subgroups of firms linked by interlocking directorates or geographical propinquity. Prior adoption had the greatest impact when adopters were centrally located in networks and thus well placed to publicize forms, legitimate their practices, and otherwise establish themselves as *infectious* community referents. And the effects of these emerging communities were most pronounced where dispersed ownership and a high proportion of outside directors rendered potential adopters *susceptible* to institutional pressures. Such work is noteworthy, both for documenting how the structure of a field

structure modulates or channels institutional dynamics, and for capturing this complexity addressing differentiated institutional processes in a single modeling framework (see also Greve 1995).

In contrast, Schneiberg and Soule's (2005) study of insurance regulation highlights the multi-level character of fields, tracing how field dynamics emerge and shape organizations, here the American states, at multiple levels. Combining historical analysis with heterogeneous diffusion models, this study shows how adopting regulation to settle *intra-state* conflicts and legitimacy crises evoked both an *interstate* system of contention, emulation, and differentiation, and a sequence of *national, field-wide* conflicts and institutional events. Four states proved influential for other states. By legislative investigations and example, these early adopters put two models of regulation into play, sparking the rise of two distinct communities of regulatory practice. At the same time, companies fought regulation in the federal courts, nationalizing controversy and conflict, and evoking three field-level developments increased the likelihood of states enacting regulation. The Supreme Court theorized regulation as "in the public interest," upholding states' rights to regulate. Insurance regulators' national associations endorsed regulation and produced a model law. Companies created a field-wide Actuarial Bureau to help states rationalize and enforce regulatory norms. As a result, states confronted a multi-tiered field that subjected them to institutional pressures at multiple levels (see also Schneiberg and Bartley 2001; Soule and Zylan 1997; Soule forthcoming). In fact, thinking about fields as federated or multi-community systems should lead naturally to analyzing how fields can subject organizations to multiple, competing, and even contradictory logics, creating another avenue for understanding institutional diversity and change.

### *Extending Contextual Analysis II: Time and Institutional Contingency*

The second design for linking levels of analysis to capture institutional effects employs modeling strategies with time-dependent effects (e.g., Mezias 1990; Fligstein 1991). In using this design, research on organizational fields refracts global polity research, but extends the implementation in two significant ways (see especially Edelman 1992; Sutton and Dobbin 1996). First, research on fields abandons both the dichotomous "absence-presence" or "early-late" view of institutionalization and the assumption that the evolution of fields involves a single, overriding model, myth, or logic. Instead, institutional history is conceptualized as a sequence of periods characterized by distinct legal-moral orders or qualitative shifts in logics or regulatory regimes. This strategy permits investigation of how fields shape organization-level processes and outcomes in different time periods under different institutional or regulatory regimes. Second, drawing on event-history methods, researchers fit separate models of organizational structure or behavior for each time period, either directly or within single exponential piecewise models. Piecewise techniques allow simultaneous analysis of "period effects" (changes in the base rates of organizational processes due to shifts in institutional regimes) and "interaction effects" (changes in the effects of lower, organizational-level factors resulting from new legal-moral order or enforcement regimes).

Together, these advances address the core claim that institutions mediate organizations' responses to economic or political problems, whether by shaping how actors construct problems or interests, providing repertoires of solutions, or determining the efficacy of action and organization (Powell 1991; Fligstein 2001). They also provide a powerful means for documenting higher-order institutional effects: as institutional

logics shift, organizations will respond differently to immediate pressures, producing different patterns of effects between lower-order, organizational-level factors and outcomes. Thornton's (2001; Thornton and Ocasio 1999) studies of the higher education publishing industry exemplify this approach. They find the shift from an editorial logic grounded in prestige and personal ties to a business-based market logic in the mid-1970s radically altered not just the power dynamics of CEO succession within firms, but also whether and how firms altered strategy and structure in response to organizational and market forces. For example, when an editorial logic prevailed within the industry, resource competition had little or no effect on executive succession, firms' merger activity, or the adoption of the M-form structures. But once the market logic emerged, publishing was recast as a business. Firms shifted attention to profits and cash flow, and increased market competition came to have powerful, positive effects on all three organizational outcomes.

Similarly, Dobbin and Dowd (2000) find that antitrust enforcement drove the railroad industry from a cooperative model of managing competition to a finance business model, altering the relationship between mergers, economic conditions, and market forces. The cooperative model eschewed mergers for cartels, prescribing mergers only for situations where a connecting railroad was failing and could be acquired inexpensively. In contrast, the finance model prescribed friendly, bank-led mergers as both a rational investment of firms' profits and the ideal way to avoid ruinous price wars as industries consolidated. As the finance model displaced its cooperative predecessor, firms responded differently to economic factors and market forces. When the cooperative model prevailed, concentration and the profits of the *acquiring* firm had no effects on mergers; only the (lowered) profits of the *acquired* prompted merger behavior. But after antitrust was enforced and the finance model prevailed, this effect disappeared, and both concentration and the profits of the *acquiring* railroads had a positive effect on merger. (For other studies of institutional contingency, see Amenta and Zyglidopoulos 1991; Amenta, Carruthers, and Zyglidopoulos 1992; Bartley and Schneiberg 2002; Dowd 2004; Lounsbury 2005). Indeed, like research on organizational survival, these analyses of institutional contingency challenge assumptions about the decoupling of institutional effects from internal organizational dynamics, showing instead how institutions penetrate the "technical core" to constitute rationality, problem-solving behavior, and other fundamental economic processes within organizations. This focus on contingency reflects a shift from the strongly mimetic and conforming organizations foregrounded in early institutional arguments (Meyer and Rowan 1977; Meyer, Scott, and Deal 1983; DiMaggio and Powell 1983) toward a view of the relationship between organizations and fields that is less rooted in sharp distinctions between "institutional" and "technical" domains. Specifying the character of these relationships emerged as a central challenge of the debates between institutional research and population ecology.

### *Population Ecology Intervenes*

Interventions by ecologists and the emergence of a heated theory contest between ecologists and institutionalists have also pushed researchers to reconsider relationships between fields and organizations, but have done so by addressing the consequences of adoption for organizations. Three developments merit particular notice: the inclusion of organizational survival as a dependent variable, challenges to the assumption that all extra-organizational factors are "institutional," and refinements in measuring legitimacy.

A trace of this theory contest has been evident in the operationalization of institutional effects. In addition to examining the *adoption* of organizational structures or policies (the primary dependent variable for the world polity literature), many organizational studies seek to explain the *survival* of organizations. Research on the adoption of employment practices by firms in response to changes in the legal environment exemplifies this new emphasis (e.g., Dobbin et al. 1994; Edelman 1990; Sutton and Dobbin 1996). In these models, changes in the legal and political environments are said to generate shifting levels of uncertainty (thus the propensity to adopt varies across periods); the presence of personnel or legal specialists constitutes a linkage to a normative model of how to respond to uncertainty (increasing the likelihood of adoption). Insofar as the adopted policies “buffer” the organization from environmental demands or volatility, as Rao and Sivakumar (1999) argues in the case of corporate investor relations departments, adoption may improve the odds of survival.

Yet “buffering” and “de-coupling” are not the only reasons that institutional ties may increase the odds of organizational survival; researchers have argued that ties may directly bring resources (Baum and Oliver 1992) or encourage changes in organizational strategy that reposition competing organizations with respect to the distribution of resources (see Baum, this volume). If increases in organizational density “signal” favorable opportunities or legitimacy, increases in the number of organizations may also attract greater resources to a field (Minkoff 1994).

This recognition of survival as an institutional effect calls into question the distinction between “technical” and “institutional” that figured in early formulations of institutional analysis. Such a distinction—despite theoretical criticism—endures in the structure of analyses that compare the effects of organization-specific and institutional variables, or that contrast internal versus external factors, with institutional mechanisms standing for the latter. But this distinction becomes difficult to sustain when field-level factors alter whole ecologies of organizations and technical cores, when institutional dynamics shape populations in both technical and institutional sectors (e.g., Singh, Tucker, and Meinhard 1991; Dobbin and Dowd 1997), or when institutional effects involve the acquisition and production of resources. Moreover, once framed in these terms, the expected consequences of institutional isomorphism in many ways complement those derived from resource dependence arguments, inviting analyses of the strategic and institutional dimensions of relationships between organizations and fields that similarly challenge the technical/institutional distinction (Oliver 1991; Hoffman and Ventresca 2002).

The engagement with population ecology has also pushed institutionalists to link measurement strategies more closely to theory, particularly the central concept of legitimation. As we argue throughout this article, many institutional analyses discuss culture and cognition in the theory section but actually measure political structures. Even where great care is taken to refine measurements, many standard indicators are open to competing interpretations. As Palmer et al. recognize (1993:125, 126), many “institutional factors”—both normative and coercive—are open to political interpretations, generating ambiguity over the theoretical import of seemingly straightforward multivariate analyses (see also Mizruchi and Fein 1999).

Both institutional analysis and population ecology reject reductionism, but for population ecologists the critical contextual factors are not shared scripts, norms, or regulatory regimes but rather the density of particular types of organizations. Emphasizing the “taken-for-grantedness” aspect of institutionalized beliefs, some population ecologists have held that legitimacy is fundamentally unobservable insofar

as it is a state of mind, but may be “inferred from the effects of density on vital rates” (Hannan et al. 1995:511). Institutionalists have countered that organizational density may be understood, at least in good part, as a “proxy” for sociopolitical processes such as endorsement or the formation of relationships to regulatory agencies (Baum and Powell 1995). If this is the case, the effects of organizational density should be diminished by, or conditional on, the inclusion of better measures of the sociopolitical or cultural mechanisms of legitimacy (Dobbin and Dowd 1997).

Many scholars have been actively working to construct better measures of legitimation (see Baum and Oliver 1992; Rao 1994; Singh et al. 1991). These studies infer institutional effects from the direct relationship of legitimation measures to vital rates and from changes in the effects of density measures on vital rates once legitimacy measures are added to the models. For example, Ruef and Scott’s (1998) study of hospitals takes an explicitly multidimensional approach to legitimacy, measuring how seven health care associations certify hospitals for their managerial or technical competence. Both forms of legitimacy reduced hospital exits from the field, net of density dependence. An alternative approach uses content analyses of media coverage of an organizational form or policy—counts of articles, phrases, or references to forms or policies—to measure legitimacy directly (Scott et al. 2000; Kelly and Dobbin 1999; Ruef 2000; Baum and Powell 1995). Hybels and Ryan (1996) advance this strategy by using both the sheer number of articles as an index of the taken-for-grantedness of the form, and the preponderance of positive over negative mentions as a measure of legitimacy as normative evaluation. Analyzing commercial biotechnology firms in the United States, they find that founding rates are more strongly associated with legitimacy as positive evaluation than with legitimacy as counts of articles. Schneiberg and Bartley (2001) likewise address legitimacy in a more direct and differentiated fashion, using the onset of public hearings and debates about insurance associations to tap cognitive crises of legitimacy, and legal bans or prohibitions to tap how political and institutional authorities evaluate those forms. Similarly, Sine and David (2003) use counts over time of press articles, reports, *and* congressional hearings to track the onset and pattern of controversy over regulation in the electrical utility industry.

### *The Need for New Tools: Measuring Culture and Coherence*

Through the use of new statistical methods and engagements with other theoretical perspectives, institutional analyses of organizational fields have greatly refined strategies for characterizing fields, measuring linkages of organizations to fields, and analyzing their consequences. Further refinements, however, may require ranging more widely. At least two measurement challenges remain: devising indicators of cognitive or cultural elements that distinguish these factors from other institutional mechanisms and crafting indices of how extensively fields cohere around a single model or set of exemplars.

Culture and cognition figure prominently in institutional theory, but empirical studies have only begun to make use of powerful techniques developed in discourse analysis and the sociology of culture. Better measures of meaning, monitoring, and legitimacy are needed to disentangle the multidimensional ties between context and actor as well as to adjudicate among regulatory, normative, and cognitive effects. Early benefits of such borrowings are evident in work that directly addresses the theoretical element that distinguishes sociological institutionalism from both other “new institutionalisms” and other sociological determinisms: the claim that actors and actions

are culturally or cognitively constituted. Breaking with the standard repertoires of institutionalist research, these insistently cultural accounts have borrowed freely from the toolkits of comparative politics, interpretive analysis, and ethnographic research.

These improvements in measurement have theoretical implications, reinforcing the new prominence of “heterogeneity” in analyses of institutional effects. Specifically, a more fine-grained analysis of meanings leads to a greater appreciation of the *multiple* models—or single models with divergent effects—that may be present within a given field. Such appreciation of heterogeneity and the relative *incoherence* of fields is crucial, we argue, for empirical explorations of institutional change. Greater precision in the measurement of cultural or cognitive elements of institutional models combined with sustained attention to variation in the coherence of fields provide a foundation for moving beyond the analysis of institutional *effects* to an examination of processes of institutional transformation.

### CAPTURING CULTURE

At the levels of world polity and interorganizational fields, researchers have consistently faced the challenge of discriminating between models of action and institutional mechanisms as well as documenting associations across levels of analysis. But although the claim for a distinctively cultural or cognitive model of action typically figures prominently in programmatic theoretical statements, it has resisted incorporation in standard quantitative research designs. Instead, the case for action shaped by taken-for-granted scripts and the quest for legitimacy under conditions of uncertainty has been built largely on evidence of *some* higher-order effect combined with the absence of the associations predicted by economic or technological determinism. Consequently, it is worth considering how those institutionalists most committed to a cultural or cognitive account have structured their own research.

Frank Dobbin’s *Forging Industrial Policy: The United States, Britain, and France in the Railway Age* (1994) exemplifies this approach. In three important respects, this study diverges from core assumptions shared by much of the work discussed thus far. First, whereas much institutionalist research presumes the restricted extent of variation (DiMaggio and Powell 1983) or the steady decrease in difference over time as nation-states conform to world polity norms, Dobbin addresses the persistence of difference across industrial polities faced with a common technological challenge: the construction and management of railroads. This design takes the first prong of the imputed effects strategy (an absence of association in the face of a technological determinism) but rather than demonstrating convergence despite differences, Dobbin documents consistency within divergence. Britain’s solutions to railroad problems not only differ from those adopted in France, but they differ consistently in ways that are informed by a distinctive model of industrial governance patterned after each nation’s institutions of political rule. Second, attending to the persistence of difference across more than two cases, Dobbin addresses configurations of outcomes, breaking with the dichotomous logic of most diffusion studies where the only outcomes are “adopted” or “not adopted.” Finally, he approaches the task of documenting models, scripts, and templates with the tools of a historian open to the diverse riches of archival sources.

Actors rarely, if ever, remain silent as they make policy or build regulatory regimes. They think, meet, argue, make claims, define options, conduct studies, tell stories, and generate discursive output, including reports, interviews, minutes, and newspaper commentaries. In producing this output, actors reveal how they perceive problems



and make (or fail to make) connections among concepts, objects, and practices. They also articulate models, fairness principles, and criteria for reasonableness or efficiency. Given a world full of both archives and people engaging in discourse, the question is precisely what all of this indicates about institutional processes.

A common measurement strategy has been to use actors' discursive output as *topics* for analysis, that is, as documentation of cognitive frames, principles, or institutional logics. These may involve extracting the most "typical" model from a body of discourse (Dobbin 1994; Carruthers and Halliday forthcoming) searching for events or arenas in which models or settlements are explicitly theorized and codified (Berk 1994; Rao 1998; Schneiberg and Soule 2005; Morrill forthcoming); reconstructing the repertoire of alternative models invoked in a particular setting and over time (e.g., Clemens 1997; Haveman and Rao 1997; Scott et al. 2000; Armstrong 2002); documenting how policy debates get framed in terms of irreconcilable positions (Hoffman and Ventresca 2002); or mapping associations between actors and usages in a given discursive field (Mohr and Guerra-Pearson forthcoming; Stevens 2001). At least three challenges confront each of these measurement strategies, albeit to different degrees. First, analysts must often extract models or infer meanings insofar as actors frequently reveal their frames, habits of mind, or assumptions only indirectly, through patterns of emphasis, by using but not articulating principles and classification schemes, or by leaving arguments unmade and alternatives unconsidered. Second, researchers must have some grounds for identifying what is "typical." Barley (1986) is exemplary in this regard, coding patterns of interaction in order to extract the modal "scripts" invoked in different settings over time. Third, researchers must consider to what extent actors "mean what they say" in the sense that discursive output does not flow directly from cognition. Public discourse, in particular, may be shaped by strategic considerations or the anticipation of repression, making it difficult to disentangle cognitive and regulatory or coercive institutional mechanisms.

This difficulty is particularly troubling given the second major use that researchers have made of discursive materials. Researchers interested in institutions have also frequently used actors' reports, assessments, and discursive output as *resources* for analysis, as first-hand descriptions or direct measurements of institutional arrangements, pressures, and constraints. This strategy is not concerned with how participants' commentaries reveal their principles of evaluation or how actors engage in explicit theorization, but views participants as impartial on-the-scene observers. Most often, this strategy relies on reports and data produced by public commissions, experts, government and nongovernmental agencies, rating services, industry associations, as well as popular, academic, and trade presses and journals. Yet to take such documents as evidence of "how it really was" is as troubling as interpreting them as accurate maps of dominant cultural models. Descriptions of institutions are discursive constructions that incorporate cultural models in their telling.

Fortunately, the entwinement of formal institutions and cultural models in the production of the official documents is not an insuperable obstacle. To locate the role of culture and cognition in patterning social action, one must look for evidence that the same set of taken-for-granted models informs discourse *absent* the coercive or instrumental constraints of formal institutions. In the case of 19th-century railroads, two other studies qualify Dobbin's strong claims for the role of industrial culture in limiting what problems are recognized and what solutions are thinkable. Berk (1994) uses the case of the Chicago Great Western Railway to document that alternative models of organization were indeed plausible, at least until a series of key court cases and regulatory decisions destroyed their viability. Comparing U.S. and Prussian railroads,

Dunlavy (1994) argues that the dominant industrial model shifted between the early and late 19th century as the increasing scale of railroads mapped onto different levels of an internally heterogeneous governance system in the United States and as the political alignments between king and parliament shifted in Prussia (see also Dobbin and Dowd 2000). Both research designs underscore how the intersection of formal institutions and industrial cultures shapes economic development, suggesting how to disentangle the distinctive contributions of regulatory structures and cultural models.

By incorporating comparisons between the center and periphery of an industry, as well as over time and across nations, all the three railroad studies illustrate how the sensibilities of social historians can enrich institutional analysis. Analytically, the most important tactic involves documenting not only the core tendency of a body of discourse (or extracting an ideal-type), but also attending to variation, conflict, deviance, and debate. The power of such analyses stems from the use of conflicts or rare events as lenses that reveal the cultural systems that structure everyday life (e.g., Beisel 1997; Carruthers and Babb 1996). Legitimacy is revealed most clearly in the breach. The violation of norms or expectations generates noise, action, and documentary production, which vary systematically with the presence, absence, or level of legitimacy. Actors complain, debates ensue, social control authorities issue warnings or conduct investigations, and offenders frequently find themselves subject to public criticism. The targets of such actions frequently then engage in counterorganization and make counterarguments.

Conversely, once an organizational form, industrial norm, or political regime acquires legitimacy, equally visible things tend to occur: people stop fighting, debates cease, and organizations wither. Thus institutionalists can adopt Zelizer's (1979) approach and gauge legitimacy by tracing the emergence and resolution of debates over an organizational form in the popular press, legislative records, trade journals, or case law. In a parallel fashion, Schneiberg (1999) uses shifts in law and changes in the level and terms of public criticism and debate to track the eruption and solution of legitimacy crises evoked by cooperative price-fixing schemes in the insurance business. At the very least, institutionalists can use the presence, absence, onset, and cessation of commentary and activity to develop simple categorical measures of legitimacy and to periodize the development of an organizational form or institutional rule.

Close attention to discourse also suggests strategies for distinguishing among institutional mechanisms. Distinctive institutional processes can be isolated by constructing a "Scott by Scott" table (Figure 1), cross-cutting W. Richard Scott's (1995:34–52) discussion of three "pillars" of institutional analysis—regulative, normative, and cognitive—with James Scott's (1990:4) distinction between public and hidden transcripts. The latter distinction underscores important issues of evidence, specifically the problems of interpreting public discourse and documents—"the public transcript"—under conditions of domination where members of a subordinate group will typically disguise or dissimulate in public, leaving traces of their own beliefs or goals only in less accessible "hidden transcripts" produced by "discourse that takes place 'offstage,' beyond direct observation by powerholders." Generalizing from this distinction, one can argue that different institutional processes will leave distinctive traces in public and backstage discourses (for an exemplar, see Eliasoph 1998). A predominantly regulative institution, built on coercive mechanisms of law and control of critical resources, should produce a public transcript characterized by conformity and, as discourse becomes less accessible to public sanction, private transcripts full

## THE PILLARS OF INSTITUTIONALISM

	<b>Regulatory</b>	<b>Normative</b>	<b>Cognitive</b>
<b>Public Transcript</b>	Elaboration of rules associated with elites and formal state agencies. Deviance is punished, but not met with purification rituals	Elaboration of rules associated with elites, formal state agencies, religious practices, etc. Deviance is punished, but resembles violation of taboo rather than infraction of rules	Articulation but little elaboration of rules (diminishing over time as they become more "taken-for granted"). Deviance is met with lack of comprehension
<b>Private or Hidden Transcript</b>	Private deviance from public rules; e.g., oblique resistance, political humor, private texts such as diaries, letters. Also evidence of private instrumental calculation, esp. to "work the system"; alternatives are "thinkable"	Elaboration of rules in private settings such as personal devotions, diaries, letters. Institutional beliefs linked to other values. Alternatives are "unthinkable" and dangerous	No articulation; taken-for-granted scripts must be inferred from silences in texts. Alternatives, if confronted, are treated as irrational, incomprehensible.

Figure 1. Evidentiary strategies for disaggregating institutional mechanisms.

of complaint, opposition, strategic dissimulation, or ridicule (e.g., Covaleski and Dirsmith 1988).

When institutional effects are produced primarily through normative mechanisms, however, one would expect to find elaboration of valued models in both the public and hidden transcript. Measuring normative content is a tricky endeavor, but one might well follow Douglas (1986) in considering the extent to which discussions of standard practices in a particular field invoke core values of the broader society and elaborate homologies or connections between those values and specific practices: "To acquire legitimacy, every kind of institution needs a formula that founds its rightness in reason and in nature. . . . For a convention to turn into a legitimate social institution it needs a parallel cognitive convention to sustain it" (1986:45–46). If "deep analogies" are successfully established, one would expect to find little divergence between public and private transcripts; core values should be as easily invoked in letters and diaries as in constitutional preambles. Furthermore, violation of such normative rules should be met with reactions that differ from those that deviance from regulatory or coercive regimes; issues of taboo, pollution, and sin should overpower elements of damage, debt, and disorder (on the analysis of cultural conflicts, see Beisel 1997; Skrentny 1996). Those who contest dominant norms will be particularly careful not to invoke such sanctions as they seek to articulate and embed an alternative normative regime.

Finally, to the extent that one adheres to a strong version of "taken-for-grantedness," the documentation of institutional effects must rest largely on *absences* of discussion and, therefore, on demonstrating the extensiveness of the discursive sources subjected to analysis. If, however, cognitive or cultural institutional mechanisms are linked more closely to "mimetic" processes, one can often find ample evidence of what models were considered by particular actors as well as justifications

for why certain models were selected (e.g., Westney 1987). Organizational resolutions, for example, often mention multiple alternative models for action. As one AFL delegate in the 1890s complained of a proposal to follow the lead of the British Trades Union Congress: “This ‘whereas’ only points to a model, to a pattern, to something which follows that we should imitate.”<sup>2</sup> Yet the insight behind the concept of mimetic isomorphism is that, at least under conditions of uncertainty, it matters what models or plans one has to follow.

The encounter of institutional theory with research strategies developed for cultural and historical analysis helps to resolve a persistent measurement issue in institutional analysis: the adjudication among “regulatory,” “normative,” and “cognitive” institutional mechanisms. At least three distinct strategies are available for directly tracking cultural—normative or cognitive—mechanisms, rather than relying on the presence/absence of formal institutions as a proxy for the existence of shared, legitimated, or taken-for-granted understandings. As was illustrated with the construction of a “Scott-by-Scott” table, the distinction between (relatively) public and (relatively) private discourse reveals the divergent effects that should be expected from the operation of distinct institutional mechanisms. Different mechanisms may also be revealed by tracing discourse over time and by making use of “breaches,” deviant events, or conflicts that reveal the usually undiscussed boundaries of taken-for-granted understandings. The persistent emphasis in qualitative studies on alternatives and conflicts suggests how quantitative analyses can incorporate greater attention to variation and, thereby, avoid the conflation of regulatory and cultural mechanisms that follows from using official documents as evidence of both formal legal arrangements and dominant cultural models.

Strategies for adjudicating among institutional mechanisms are also critical for approaching questions of the coherence and transformation of institutional fields. To a great extent, diffusion and adoption studies either begin with already-institutionalized models, or assume a dominant model or logic (for a review, see Schneiberg and Soule 2005). In contrast, questions about change direct attention both to possibility that multiple—and competing—models coexist within a field and to the processes by which particular models or scripts gain legitimacy and acquire the capacity to structure action and to transform institutions (Clemens 1997:41–64, 1998). As suggested by discourse analysis—the progression from elaboration to taken-for-grantedness to renewed contestation—the study of coherence, incoherence, and change provides opportunities for understanding relations among institutional mechanisms and for exploring how the multiplex, fractured, or contradictory nature of fields is itself a critical source of transformational pressures.

## INSTITUTIONAL COHERENCE AND THE TRANSFORMATION OF FIELDS

The growing recognition that fields are often populated by multiple and competing models, logics, and organizational forms complicates the character of institutional analysis and may force a broad reevaluation of the now canonical methodologies for measuring institutional effects. Acknowledging heterogeneity challenges conventional images of causality and pushes institutional analysis away from strong forms of

<sup>2</sup>American Federation of Labor, *An Interesting Discussion on a Political Programme at the Denver Convention of the American Federation of Labor* (Washington, DC: American Federation of Labor, 1894), p. 12.

structural determinism to a much greater emphasis on agency, conflict, contingency, and process. By recognizing variation and incoherence within fields and developing strategies for their measurement, researchers acquire new tools for explaining institutional change.

### *Measuring Heterogeneity*

Until recently, most analyses of institutional effects assumed homogeneity or convergence. Fields were conceptualized as organized around a dominant model or logic; effects were modeled in the dichotomous terms of adoption or failure to adopt. By contrast, efforts to measure heterogeneity typically follow DiMaggio's study of art museums (1991) and begin by using in-depth, qualitative-historical analyses of discourse, debate, and contestation to reconstruct the range of models employed within a field (see Berk 1994; Scott et al. 2000; Greenwood, Hinings, and Cooper forthcoming). This strategy has helped researchers document how hybrid forms (Stark 1996; Sabel and Zeitlin 1997; Haveman and Rao 1997) or contradictory models (Barley and Kunda 1992) are sometimes institutionalized within fields. This strategy also underscores how actors at the peripheries or interstices of fields borrow, transpose, or recombine models from multiple fields to solve problems or challenge existing arrangements (Campbell 1997; Clemens 1993, 1997; Leblebici et al. 1991; Schneiberg 2002; Morrill forthcoming; Edelman forthcoming). In an exemplary qualitative-comparative study of neonatal intensive care units, Heimer (1999) documents how medical staff, state actors, and parents strategically import legal and familial logics into a setting dominated by medical institutions. Here, as in other studies, scholars employ in-depth qualitative analyses of sites of sustained contestation—a strategy of careful case selection and research—in order to map how challengers introduce and elaborate multiple, competing logics within fields (Carruthers and Babb 1996; D'Aunno, Sutton and Price 1991; Orru, Hamilton, and Biggart 1991; Lounsbury, Ventresca, and Hirsch 2003; Stryker 2000)

Qualitative-historical treatments of discourse have also prompted institutionalists to use systematic content analysis to trace the emergence of alternative models within a field. Exemplary in this regard is the work of Scott et al. (2000) that identifies the key terms that distinguish particular health care logics (e.g., “managed care”), and then uses the frequency with which they appear in medical journals to document the rise and eventual dominance of an economic-managerial logic over logics of public provision and professional control.<sup>3</sup> Similarly, Barley and Kunda (1992) use counts of articles in management journals to trace the emergence of new managerial ideologies.

An alternative strategy for assessing heterogeneity focuses on organizational forms rather than discourses to document multiple, competing institutional logics. One variant of this strategy uses over time counts of organizations that deviate from the dominant model and serve as sites or bearers of alternative models or logics. For example, Ingram and Simons (2000) use workers' cooperatives and kibbutzim to track the incursion of socialist cooperativism in the Israeli economy, and Schneiberg (2002) uses

<sup>3</sup>Such research suggests other discourse-based strategies for capturing intra-field heterogeneity. These might include: (1) developing diversity indices that compare the relative frequencies of terms associated with different models within professional or trade journals; (2) measuring the convergence or divergence of terms used in publications that reflect different actors or locations within institutional space; (3) measuring the frequencies of terms denoting hybrid forms or combined logics; or (4) tracing the rise and relative importance of new journals and publications themselves.

mutuals, cooperatives, and public enterprises to trace how populists, progressives, and other groups in the United States fought to establish a decentralized, regionally based economy of farmers, independent producers, and self-governing market towns as an alternative to the emerging corporate order.

A second variant of using organizational forms builds on the first by constructing variance-based measures of diversity within fields (Scott 1994, 1995). Meyer et al. (1994) employ coefficients of variation to index intra-field heterogeneity and its decline over time in U.S. public school systems. And in his study of the role of lawyers in Silicon Valley, Suchman (1995) finds increasing and then decreasing homogeneity in business practices by constructing an index of idiosyncrasy that captures how often law firms use nonstandard contract provisions. Such measures are particularly suitable in cases where one organizational form has become the standard for the field (and could arguably serve as the mean), and where researchers could make credible quantitative assessments of organizational characteristics and their departure from the norm. Alternatively, work that generates *multiple* demographics of organizational form (e.g., Baum and Oliver 1992; Haveman and Rao 1997; Baum forthcoming) suggests direct extensions of the common practice of measuring the proportion of a field that adopts a model. Such an extension would involve: determining the different organizational forms present in a field; calculating the proportion of firms within a field that adopt each form; and using these proportions to construct an index of diversity, Herfindahl index, or similar measure of heterogeneity, or relative dominance. Sine, Haveman, and Tolbert (2005) exemplify this approach in their study of the rise of an independent power sector in the United States. They use counts of the founding of different organizational forms (e.g., wind power plant, solar cogenerator) to build a Blau index of heterogeneity, and then use that index to assess how regulations, trade associations, and media coverage shaped organizational diversity in that sector. In a similar vein, Schneiberg and Bartley (2001; Bartley and Schneiberg 2002) built an index of diversity out of counts of domestic stock insurance companies, mutual insurers, and foreign firms to examine whether heterogeneity in this field fueled regulatory efforts to rationalize industry practices. Unlike variance-based measures or measures of idiosyncrasy, neither of these form-based indices require assumptions about central tendency or the dominance of a particular model within a field; both would thus be appropriate for new or unevenly institutionalized fields.

Finally, researchers might tap heterogeneity by mapping systems of forms and discourse, and the overall pattern of relations among organizations in fields and discursive spaces. Subjecting jurisdictional claims to multidimensional scaling techniques, Mohr and Guerra-Pearson (forthcoming; Mohr 1998) document how welfare organizations embodying different models and visions of social order either engage in head-to-head competition for dominance, or produce an internally differentiated field in which organizations dominate their particular corner of institutional space, while ceding the rest of the field to other organizational forms. King, Clemens, and Fry (2004) use correspondence analysis to track the crystallization of distinctive combinations of practices in the open field created by legislation permitting charter schools and demanding innovation. Ruef (2000) develops a broadly similar approach, applying refinements in MDS to thousands of on-line texts to create multidimensional maps of the evolving system of discourse in health care. Such maps, in turn, are used to trace how different institutional logics alter the ways in which actors discursively combine elements of organizational forms, and how shifts in the counts of discussion and organizations across "identity spaces" in discursive systems create opportunities

or carrying capacities for the emergence of new forms. While relatively novel, systemic approaches hold great promise for analyzing heterogeneity within fields.

### *Institutional Effects*

Introducing heterogeneity may also require reconsideration of established strategies for measuring institutional effects, although little explicit work exists on this topic. At the very least, the emergence of multiple models in a field should weaken institutional effects, creating new opportunities for experimentation, contestation, and innovation. Thus, future efforts to measure institutional effects might employ period-specific modeling strategies to observe how parameter estimates change as heterogeneity increases and new logics emerge within a field. Alternatively, future research might shift from modeling the rates of adoption of a single policy or form to strategies that model the variance of structural outcomes (Sine, Haveman, and Tolbert 2005); organizational strategies for mapping, deflecting, or exploiting institutional complexity (Alexander 1998); the rates at which organizations adopt hybrid, multiple, or deviant organizational forms; or the level of criticism, debate, and innovation within a field. Yet perhaps the biggest challenge for institutionalists is to explain change, a task where introducing heterogeneity may produce its most significant analytical payoff.

### *Explaining Institutional Change*

Surveying the “accomplishments of institutional theory,” DiMaggio (1988:12) concluded that they were largely limited to “the diffusion and reproduction of successfully institutionalized organizational forms and practices,” adding little to the understanding of the origins, processes, and undoing of institutionalization. As we have documented, the intervening decades have seen important developments in the analysis of the diffusion of institutionalized practices and structures. At the same time, growing interest in the dynamic aspects of institutions has prompted scholars to develop alternative research designs suited to these new questions.

Recall the first core claim of institutional theory: context or higher-order entities influence the actions or character of lower-order entities. By incorporating institutions and independent variables, standard research designs credit institutions with both temporal and causal priority over lower-order entities. In a fundamental sense, this privileging of context is incontestable. Just as children are born into a world of already-socialized adults, similarly organizations are established in societies that are already institutionalized. Yet, even if the social world is always already institutionalized, any given institution must be constructed, reproduced, and, in time, may be de-institutionalized (Clemens and Cook 1999). Thus studies of construction and transformation invert, at least partially, the causal imagery of institutional diffusion.

Whereas studies of diffusion typically examine the effect of a single institution (e.g., an international convention) on the adoption of practices by multiple entities (in this case, nation-states), research on the construction of institutions is more likely to proceed via historical case studies and to address the role of multiple actors in the construction of a single institution, notably the roles of professionals and organizational entrepreneurs in the creation of interorganizational fields. In his research on U.S. art museums, DiMaggio makes a general theoretical claim: the “politics of institutionalization” are “*structural* because they follow an internal logic of contradiction, such that the success of an institutionalization process creates new sets of legitimated actors who, in the course of pursuing distinct interests, tend to delegitimize and deinstitutionalize aspects of the institutional forms to which they owe

their own autonomy" (1988:13, 1991:287). Other studies argue that an institution (to echo Marx) "produces...its own grave-diggers" or, less dramatically, its own patterns of challenge and contention. In addition to producing new actors with new interests, institutions may also fail to deal with certain problems or generate new grievances around which contenders may mobilize. Morrill (forthcoming) describes how "alternative dispute resolution" was established through a process originating in "interstitial emergence [beginning] with innovation beyond real or perceived failing conventional practices among heterogeneous players in overlapping organizational fields." Clemens (1993) addresses the issue of how institutions generate grievances through political exclusion. Actors who are aggrieved but not coopted are an important source of pressure for institutional change. Common to each of these analyses is attention to how the tensions generated by existing institutions contribute not simply to the probability of change, but to the probability of conflict over particular issues conducted by particular challengers (see also Scott 1990:90–105).

An analogous economic argument has been developed from the observation that "one effect of institutions is that the resources needed to conform necessarily become more scarce once a standard is established." The more institutionalized the standard, the greater the probability that marginal actors will adopt alternative practices (Leblebici et al. 1991:337–38). Similarly, Schneiberg (2005) finds tradeoffs or contradictions associated with governance regimes: Institutions designed to solve particular economic problems can prevent firms or regulators from solving others, while fueling business strategies that intensify unresolved problems and generate new inefficiencies. As contradictions accumulate, they provide state officials with material incentives to protect low-cost challengers, provide opportunities for champions of alternative models, and foster reform coalitions between insiders and outsiders (see also Scott et al. 2000). This self-limiting process in which institutions are undermined by rising prices generated by their own expansion may be aggravated by exogenous shocks that alter costs (e.g., through increased regulation) or change the perception of problems to be solved. Barley and Kunda (1992), for example, trace how dominant models of managerial discourse alternate as shifting economic circumstances undermine the hegemony of each in turn.

Both variants of this argument imply a distinctive research design. In contrast to the imagery of exposure and infection that informs studies of institutional diffusion, this model of institutional change requires tracking the changing cast of competing actors and recovering the shifting repertoire of alternative models or practices, an "archaeology of schemas" consistent with what Stinchcombe has described as "the method of virtual choice" (1978:62–63). This model of institutional change predicts sequences in which successful institutionalization is preceded and followed by the emergence of new competitors or alternative models; these models should be initially championed by actors who are marginalized by a dominant institutional order or who span multiple fields.

Three critical insights follow from this research. First, change is constituted with materials provided by existing institutions, driven by processes of transposition, editing and translation, hybridization, and recombination (Campbell 1997; Clemens 1993, 1997; Stark 1996; Sahlin-Andersson 1996; Sabel and Zeitlin 1997; Djelic 1998; Kleinman and Vallas 2001; Schneiberg 2002). Second, margins and overlaps matter. We need to pay close attention to processes that unfold at the peripheries, interstices, and overlaps of institutional fields (Stearns and Allen 1996; Owen Smith and Powell 2001; Palmer and Barber 2001; Morrill forthcoming; Edelman forthcoming). In these social locations, authority structures may be attenuated, roles and boundaries



are often blurred or ambiguous, and participants are exposed to multiple models or logics, creating opportunities and resources for actors to experiment with new, multiple, or hybrid forms. Finally, it is frequently social movements and challengers that do this work of transposition and recombination at the margins or interstices of institutional fields. Movements, like institutional entrepreneurs, can serve as both carriers of new logics and forms, and platforms for theorization and new policy discourse (Clemens 1993; Clemens and Cook 1999; Davis and Thompson 1994; Moore 1996; Rao, Morrill and Zold 2000; Schneiberg 2002; Schneiberg and Soule 2005; Lounsbury, Ventresca, and Hirsch 2003; McAdam and Scott 2005)

Such a deeply contextual approach poses challenges for both empirical generalization and theory testing. One response is longitudinal; repeated cycles of institutionalization, challenge, and de-institutionalization are mapped with an eye to the regularities in the location of challengers within a field and to the ways in which definitions of exchange or relationship at the micro-level prefigure the construction of new interorganizational fields. In their study of the U.S. radio industry, Leblebici et al. (1991) document three cycles of consolidation, criticism, and reorganization of the industry field between 1920 and 1965, paying particular attention to the ways in which analogies, private agreements, and conventions were adopted to solve coordination problems.

A second response, also longitudinal, focuses on the parallel development or co-evolution of organizational forms and institutional logics. The most direct implementations of this approach highlight one side of this dynamic interaction. Thus, Haveman and Rao (1997) explain change in American banking in part by tracing how Progressivism substituted moral sentiments of bureaucracy and impersonal order for mutuality and enforced saving, evoking a shift from mutual to stock forms of organization. Similarly, for Scott et al. (2000), changes in health occurred as the rise of accessibility and managed care as governing logics fostered new regulatory systems and a host of new forms, including HMOs, PPOs and surgicenters.

Other implementations of a co-evolutionary approach highlight multiple interactions among logics, challengers or change agents, and organizational forms. Dynamic feedbacks figure centrally in Schneiberg's (2002, 2006) analyses of diversity and change in American industry: new logics and their champions—agrarians, anti-corporate movements, progressive reform groups—promote mutual, cooperative, and public enterprises in a variety of sectors. These organizations, in turn, become platforms or infrastructures for extending producerist logics and cooperative templates into other industries. Indeed, studies of change can fruitfully exploit insights developed by heterodox ecologists like Minkoff (1994), whose analyses of cross-form effects and organizational sequences also address core co-evolutionary processes of institutional change. Here, social movement organizations created new normative expectation. They raised awareness of discrimination, fostered rights-based discourse, and otherwise legitimated the evolution of more moderate systems of advocacy and service organizations, institutionalizing fundamental transformations in the welfare state.

A final response to the challenge of analyzing change employs comparative case studies. One variant of this strategy uses comparisons within a case to explore how multiple project and groups produce change. In her study of how an American political system dominated by partisan elections gave way to an emergent regime of interest group politics, for example, Clemens (1997) compares multiple political challengers—organized labor, farmers, and women—across different institutional settings in order to demonstrate consistency in the set of alternatives discussed by a particular type of

challenger as well as variations in how those alternatives were incorporated through new laws or political ideologies. A second approach employs comparisons across cases to trace how common institutional pressures or shifts are translated or incorporated differently into different contexts, producing divergent patterns of change. Soysal (1994) builds on the world polity model of diffusion—in this case of new conceptions of citizenship—but then uses comparisons across European nations to explore how these new norms interacted with national policies and institutions to yield distinctive trajectories of incorporation of guest workers and resident aliens. Barley (1986) shows how context shapes institutional change by comparing the implementation of a single innovation—CT scanning—in two hospitals, tracing how physicians and technicians develop divergent clusters of scripts and rules to manage the new medical technology. A third related strategy compares cases in order to document relationships between fields in which the crystallization of models in one system or field fuel transformations in others. Thus, Djelic (1998) and Guillen (1994) track how American models of economic organization and management education were exported to other countries, altering institutional practices there while simultaneously being themselves transformed as they were translated and implemented in distinctive national contexts (see also Sahlins-Andersson 1996; Czarniawska and Sevón 1996). Attending to multiple, alternative, or competing discourses, all of these studies suggest how methods of cultural analysis and qualitative coding can be effectively combined with case study approaches and even quantitative analyses to explain change (Mohr and Duquenne 1997; Mohr and Guerra-Pearson forthcoming). Moreover, all of these studies elaborate the fundamental contextualism of institutional analysis, relying on multiple cases and multi-level designs to understand “cross-field” effects and the “nestedness” of fields within larger fields fuel and condition institutional transformation.

Taken together, these studies suggest that case studies of institutional transformation do not preclude significant advances in both theoretical generalization and empirical cumulation. These developments have necessarily occurred along multiple levels (Galaskiewicz 1991:310). At the macro level, the growing number of case studies makes possible a meta-analysis of the relative prevalence of internal contradiction or competition and exogenous shock as instigators of institutional transformation. At the micro level, the appropriation of analytic techniques such as network analysis and qualitative coding represents a greatly enriched technology for describing institutional effects and interorganizational fields. Finally, by incorporating comparisons over time, across groups, and across settings within case studies of institutional change, these scholars contribute to our understanding of important variations in the strength and character of institutional processes.

#### VARIATION AND SELECTION: NEW TOOLS FOR INSTITUTIONAL ANALYSIS

Studies of institutional change carry a lesson for institutional research. While the consolidation of canonical research designs contributes to the wider adoption of this agenda, it can also crowd out the variation and alternatives that are the basic materials of innovation. Tradeoffs are unavoidable, but the benefits of consolidating a research program are compromised insofar as standard practices cause certain basic problems to become taken-for-granted and, therefore, largely insulated from efforts at improvement. In this regard, the central empirical contribution of institutionalist research to date—the consistent, impressive demonstration that context

matters whether it be world polity or organizational field—has obscured the puzzle of when and how particular institutional mechanisms operate. The demonstration of higher-order effects alone cannot be taken as evidence of a particular institutional mechanism such as cognitive taken-for-grantedness or cultural legitimation.

Fortunately, there is sufficient heterogeneity among research styles to inspire diverse efforts to probe theoretical ambiguities and unpack empirical processes. Research on the world polity and on interorganizational fields has contributed greatly to strengthening empirical measures of associations across levels of analysis as well as to demonstrating the consequences of such associations for organizational survival and strategy. Cultural and historical approaches to institutional arguments, by comparison, have enriched the strategies available for documenting the most distinctive claims of sociological institutionalism, that both actors and actions are culturally constituted. Furthermore, by explicitly emphasizing variation and the multiplicity of alternatives—rather than the dichotomous logic of adoption studies—these qualitative approaches have problematized the assumption that institutionalized fields are coherent, thereby revealing the materials with which actors may disassemble or reassemble the institutions that provide the context for their lives. Although hammers are not designed to unlock cages, if the blow is properly placed, they can sometimes bend bars.

## REFERENCES

- Abell, P. 1995. "The New Institutionalism and Rational Choice Theory." Pp. 3–14 in *The Institutional Construction of Organizations: International and Longitudinal Studies*, edited by W. R. Scott and S. Christensen. Thousand Oaks, CA: Sage.
- Alexander, V. D. 1998. "Environmental Constraints and Organizational Strategies: Complexity, Conflict, and Coping in the Nonprofit Sector." Pp. 272–90 in *Private Action and the Public Good*, edited by W. W. Powell and E. S. Clemens. New Haven, CT: Yale University Press.
- Amenta, E., B. G. Carruthers, and Y. Zylan. 1992. "A Hero for the Aged? The Townsend Movement, the Political Mediation Model, and US Old-Age Policy, 1934–1950." *American Journal of Sociology* 98:308–39.
- Amenta, E. and Y. Zylan. 1991. "It Happened Here: Political Opportunity, the New Institutionalism and the Townsend Movement." *American Sociological Review* 56:25–65.
- Armstrong, E. 2002. *Forging Gay Identities: Organizing Sexuality in San Francisco, 1950–1994*. Chicago: University of Chicago Press.
- Barley, S. R. 1986. "Technology as an Occasion for Structuring: Evidence from Observations of CT Scanners and the Social Order of Radiology Departments." *Administrative Science Quarterly* 31:78–108.
- Barley, S. R. and G. Kunda. 1992. "Design and Devotion: Surges of Rational and Normative Ideologies of Control in Managerial Discourses." *Administrative Science Quarterly* 37:363–99.
- Bartley, T. 2003. "Certifying Forests and Factories: States, Social Movements, and the Rise of Private Regulation in the Apparel and Forest Products Fields." *Politics & Society* 3:433–64.
- Bartley, T. and M. Schneiberg. 2002. "Rationality and Institutional Contingency: The Varying Politics of Economic Regulation in the Fire Insurance Industry." *Sociological Perspectives* 45:47–79.
- Baum, J. Forthcoming. "Competitive and Institutional Isomorphism in Organizational Populations." In *How Institutions Change*, edited by W. W. Powell and D. Jones. Chicago: University of Chicago Press.
- Baum, J. and C. Oliver. 1992. "Institutional Embeddedness and the Dynamics of Organizational Populations." *American Sociological Review* 57:540–59.
- Baum, J. and W. W. Powell. 1995. "Cultivating an Institutional Ecology of Organizations: Comment on Hannan, Carroll, Dundon, and Torres." *American Sociological Review* 60:529–38.
- Beisel, N. 1997. *Imperiled Innocents: Anthony Comstock and Family Reproduction in Victorian America*. Princeton, NJ: Princeton University Press.
- Berk, G. 1994. *Alternative Tracks: The Constitution of American Industrial Order, 1865–1917*. Baltimore, MD: Johns Hopkins University Press.
- Boli, J. and G. M. Thomas. 1997. "World Culture in the World Polity: A Century of International Non-Governmental Organization." *American Sociological Review* 62:171–90.

- Campbell, J. L. 1997. "Mechanisms of Evolutionary Change in Economic Governance: Interaction, Interpretation, and Bricolage." Pp. 10–32 in *Evolutionary Economics and Path Dependence*, edited by L. Magnusson and J. Ottosson. Cheltenham, UK: Edward Elgar.
- . 2004. *Institutional Change and Globalization*. Princeton, NJ: Princeton University Press.
- Carruthers, B. and S. Babb. 1996. "The Color of Money and the Nature of Value: Greenbacks and Gold in Postbellum America." *American Journal of Sociology* 101:1556–91.
- Carruthers, B. and T. Halliday. Forthcoming. "Institutionalizing Creative Destruction: Predictable and Transparent Bankruptcy Law I the Wake of the East Asian Financial Crisis." In *Neoliberalism and Institutional Reform of East Asia*, edited by M. Woo-Cummings. Ithaca: Cornell University Press.
- Clemens, E. S. 1993. "Organizational Repertoires and Institutional Change: Women's Groups and the Transformation of U.S. Politics, 1890–1920." *American Journal of Sociology* 98:755–98.
- . 1997. *The People's Lobby: Organizational Innovation and the Rise of Interest Group Politics in the United States, 1890–1925*. Chicago: University of Chicago Press.
- Clemens, E. S. and J. Cook. 1999. "Politics and Institutionalism: Explaining Durability and Change." *Annual Review of Sociology* 25:441–66.
- Covaleski, M. A. and M. W. Dirsmith. 1988. "An Institutional Perspective on the Rise, Social Transformation, and Fall of a University Budget Category." *Administrative Science Quarterly* 33:562–87.
- Czarniawska, B. and G. Sevón, eds. 1996. *Translating Organizational Change*. Berlin: Walter de Gruyter.
- D'Aunno, T., R. Sutton, and R. Price. 1991. "Isomorphism and External Support in Conflicting Institutional Environments: A Study of Drug Abuse Treatment Units." *Academy of Management Journal* 3:636–61.
- Davis, G., D. McAdam, W. R. Scott, and M. N. Zald, eds. 2005. *Social Movements and Organization Theory*. New York: Cambridge University Press.
- Davis, G. F. and H. R. Greve. 1997. "Corporate Elite Networks and Governance Changes in the 1980s." *American Journal of Sociology* 103(1):1–37.
- Davis, G. M. and T. Thompson. 1994. "A Social Movement Perspective on Corporate Control." *Administrative Science Quarterly* 39:141–73.
- DiMaggio, P. J. 1988. "Interest and Agency in Institutional Theory." Pp. 3–21 in *Institutional Patterns and Organizations: Culture and Environment*, edited by L. G. Zucker. Cambridge, MA: Ballinger.
- . 1991. "Constructing an Organizational Field as a Professional Project: U.S. Art Museums, 1920–1940." Pp. 267–92 in *The New Institutionalism in Organizational Analysis*, W. W. Powell and P. J. DiMaggio. Chicago: University of Chicago Press.
- DiMaggio, P. J. and W. W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48:147–60.
- Djelic, M.-L. 1998. *Exporting the American Model: The Postwar Transformation of European Business*. New York: Oxford University Press.
- Dobbin, F. 1994. *Forging Industrial Policy: The United States, Britain and France in the Railway Age*. New York: Cambridge University Press.
- Dobbin, F. and T. J. Dowd. 1997. "How Policy Shapes Competition: Early Railroad Foundings in Massachusetts." *Administrative Science Quarterly* 42(3):501–29.
- . 2000. "The Market that Antitrust Built: Public Policy, Private Coercion, and Railroad Acquisitions, 1825 to 1922." *American Sociological Review* 65(October):631–57.
- Dobbin, F., L. B. Edelman, J. W. Meyer, W. R. Scott, and A. Swidler. 1988. "The Expansion of Due Process in Organization." Pp. 71–98 in *Institutional Patterns and Organizations: Culture and Environment*, edited by L. G. Zucker. Cambridge, MA: Ballinger Publishing Co.
- Dobbin, F., J. R. Sutton, J. W. Meyer, and W. R. Scott. 1994. "Equal Opportunity Law and the Construction of Internal Labor Markets." Pp. 272–300 in *Institutional Environments and Organizations: Structural Complexity and Individualism*, edited by W. R. Scott, J. W. Meyer, and Associates. Thousand Oaks, CA: Sage.
- Douglas, M. 1986. *How Institutions Think*. Syracuse, NY: Syracuse University Press.
- Dowd, T. J. 2004. "Concentration and Diversity Revisited: Production Logics and the US Mainstream Recording Market, 1940–1990." *Social Forces* 82(4):1411–55.
- Drori, G., J. Meyer, F. Ramirez, and E. Schofer. 2003. *Science in the Modern World Polity: Institutionalization and Globalization*. Stanford: Stanford University Press.
- Dunlavy, C. A. 1994. *Politics and Industrialization: Early Railroads in the United States and Prussia*. Princeton, NJ: Princeton University Press.
- Edelman, L. B. 1990. "Legal Environments and Organizational Governance: The Expansion of Due Process in the American Workplace." *American Journal of Sociology* 95:1401–40.
- . 1992. "Legal Ambiguity and Symbolic Structures: Organizational Mediation of Civil Rights Law." *American Journal of Sociology* 97:1531–76.

- . Forthcoming. “Constructed Legalities: Socio-Legal Fields and the Endogeneity of Law.” In *How Institutions Change*, edited by W. W. Powell and D. Jones. Chicago: University of Chicago Press.
- Edelman, L. B., C. Uggen, and H. Erlanger. 1999. “The Endogeneity of Legal Regulation: Grievance Procedures as Rational Myth.” *American Journal of Sociology* 105:406–54.
- Eliasoph, N. 1998. *Avoiding Politics: How Americans Produce Apathy in Everyday Life*. New York: Cambridge University Press.
- Espeland, W. N. 1998. *The Struggle for Water: Politics, Rationality, and Identity in the American Southwest*. Chicago: University of Chicago Press.
- Fligstein, N. 1990. *The Transformation of Corporate Control*. Cambridge: Harvard University Press.
- . 1991. “The Structural Transformation of American Industry: An Institutional Account of the Causes of Diversification in the Largest Firms, 1919–1979.” Pp. 311–36 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: University of Chicago Press.
- . 2001. *The Architecture of Markets: An Economic Sociology of Twenty-First Century Capitalist Societies*. Princeton, NJ: Princeton University Press.
- Frank, D. J., A. Hironaka, and E. Schofer. 2000. “The Nation State and the Natural Environment Over the Twentieth Century.” *American Sociological Review* 65:96–116.
- Galaskiewicz, J. 1991. “Making Corporate Actors Accountable: Institution-Building in Minneapolis-St. Paul.” Pp. 293–310 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: University of Chicago Press.
- Galaskiewicz J. and R. S. Burt. 1991. “Interorganizational Contagion in Corporate Philanthropy.” *Administrative Science Quarterly* 36:88–105.
- Galaskiewicz J. and S. Wasserman. 1989. “Mimetic and Normative Processes Within an Interorganizational Field: An Empirical Test.” *Administrative Science Quarterly* 34:454–79.
- Greenwood, R., C. R. Hinings, and D. Cooper. Forthcoming. “An Institutional Theory of Change: Contextual and Interpretive Dynamics in the Accounting Industry.” In *How Institutions Change*, edited by W. W. Powell and D. Jones. Chicago: University of Chicago Press.
- Greve, H. 1995. “Jumping Ship: The Diffusion of Strategy Abandonment.” *Administrative Science Quarterly* 40:444–73.
- Guillen, M. 1994. *Models of Management: Work, Authority, and Organization in a Comparative Perspective*. Chicago: University of Chicago Press.
- Guler, I., M. Guillen, and J. M. MacPherson. 2002. “Global Competition, Institutions and the Diffusion of Organizational Practices: The International Spread of ISO 9000 Quality Certificates.” *Administrative Science Quarterly* 47:207–32.
- Hannan, M. T., G. R. Carroll, E. A. Dundon, and J. C. Torres. 1995. “Organizational Evolution in a Multinational Context: Entries of Automobile Manufacturers in Belgium, Britain, France, Germany, and Italy.” *American Sociological Review* 60:509–28.
- Haveman, H. A. 1993. “Follow the Leader: Mimetic Isomorphism and Entry Into New Markets.” *Administrative Science Quarterly* 38:593–627.
- Haveman, H. A. and H. Rao. 1997. “Structuring a Theory of Moral Sentiments: Institutional and Organizational Coevolution in the Early Thrift Industry.” *American Journal of Sociology* 102:1606–51.
- Heimer, C. A. 1999. “Competing Institutions: Law, Medicine, and Family in Neonatal Intensive Care.” *Law and Society Review* 33:17–66.
- Hironaka, A. and E. Schofer. 2002. “Decoupling in the Environmental Arena: The Case of Environmental Impact Assessments.” Pp. 214–31 in *Organizations, Policy, and the Natural Environment*, edited by A. J. Hoffman and M. J. Ventresca. Stanford, CA: Stanford University Press.
- Hoffman, A. J. and M. J. Ventresca, eds. 2002. *Organizations, Policy and the Natural Environment*. Stanford, CA: Stanford University Press.
- Hybels, R. C. and A. R. Ryan. 1996. “Entrepreneurship in U.S. Commercial Biotechnology from 1974 to 1989: An Empirical Test of the Legitimation Dynamic in Density Dependence Theory.” Presented at the annual meeting of the Academy of Management, Cincinnati, OH.
- Ingram, P. and T. Simons. 2000. “State Formation, Ideological Competition, and the Ecology of Israeli Workers’ Cooperatives, 1920–1992.” *Administrative Science Quarterly* 45:25–53.
- Isaac, L. W. and L. J. Griffin. 1989. “Ahistoricism in Time-Series Analyses of Historical Process: Critique, Redirection, and Illustrations from U.S. Labor History.” *American Sociological Review* 54:873–90.
- Jang, Y. S. 2000. “The Worldwide Founding of Ministries of Science and Technology, 1950–1900.” *Sociological Perspectives* 43(2):247–70.
- Kelly, E. 2003. “The Strange History of Employer-Sponsored Child Care: Interested Actors, Uncertainty and the Transformation of Law in Organizational Fields.” *American Journal of Sociology* 109:606–49.

- Kelly, E. and F. Dobbin. 1999. "Civil Rights Law at Work: Sex Discrimination and the Rise of Maternity Leave Policies." *American Journal of Sociology* 105:455–92.
- King, B., E. S. Clemens, and M. Fry. 2004. "Learning to Do Education: The Emergence of Form in Arizona's Charter Schools." Paper presented at the meetings of the American Sociological Association, San Francisco.
- Kleinman, D. L. and S. P. Valias. 2001. "Science, Capitalism, and the Rise of the 'Knowledge Worker': The Charging Structure of Knowledge Production in the United States." *Theory and Society* 30(4):451–92.
- Lant, T. K. and J. A. C. Baum. 1995. "Cognitive Sources of Socially Constructed Competitive Groups: Examples from the Manhattan Hotel Industry." Pp. 15–38 in *The Institutional Construction of Organizations: International and Longitudinal Studies*, edited by W. R. Scott and S. Christensen. Thousand Oaks, CA: Sage.
- Leblebici, H., G. R. Salancik, A. Copay, and T. King. 1991. "Institutional Change and the Transformation of Interorganizational Fields: An Organizational History of the U.S. Radio Broadcasting Industry." *Administrative Science Quarterly* 36:333–63.
- Lounsbury, M. 2001. "Institutional Sources of Practice Variation: Staffing College and University Recycling Programs." *Administrative Science Quarterly* 46:29–56.
- . 2005. "Institutional Variation in the Evolution of Social Movements: Competing Logics and the Spread of Recycling Advocacy Groups." In *Social Movements and Organization Theory*, edited by G. Davis, D. McAdam, W. R. Scott, and M. N. Zald. New York: Cambridge University Press.
- Lounsbury, M., M. Ventresca, and P. Hirsch. 2003. "Social Movements, Field Frames and Industry Emergence: A Cultural-Political Perspective on US Recycling." *Socio-Economic Review* 1:71–104.
- McAdam, D. and W. R. Scott. 2005. "Organizations and Movements." In *Social Movements and Organization Theory: Building Bridges*, edited by J. Davis, D. McAdam, D. Scott, and M. Zald. Cambridge: Cambridge University Press.
- McNeely, C. L. 1995. "Prescribing National Education Policies: The Role of International Organizations." *Comparative Education Review* 39:483–507.
- Meyer, J. W. 1999. "The Changing Cultural Content of the Nation-State: A World Society Perspective." Pp. 123–43 in *State/Culture: State-Formation After the Cultural Turn*, edited by G. Steinmetz. Ithaca, NY: Cornell University Press.
- Meyer, J. W., J. Boli, and G. M. Thomas. 1994. "Ontology and Rationalization in the Western Cultural Account." Pp. 7–27 in *Institutional Environments and Organizations: Structural Complexity and Individualism*, edited by W. R. Scott, J. W. Meyer, and Associates. Thousand Oaks, CA: Sage.
- Meyer, J. W., J. Boli, G. M. Thomas, and F. O. Ramirez. 1997. "World Society and the Nation-State." *American Journal of Sociology* 103:144–81.
- Meyer, J. W. and R. L. Jepperson. 2000. "The 'Actors' of Modern Society: The Cultural Construction of Social Agency." *Sociological Theory* 18(1):100–20.
- Meyer, J. W., F. O. Ramirez, R. Rubinson, and J. Boli-Bennett. 1977. "The World Educational Revolution, 1950–1970." *Sociology of Education* 50:242–58.
- Meyer, J. W., F. O. Ramirez, and Y. N. Soysal. 1992. "World Expansion of Mass Education, 1870–1980." *Sociology of Education* 65:128–49.
- Meyer, J. W. and B. Rowan. 1977. "Institutional Organizations: Formal Structure as Myth & Ceremony." *American Journal of Sociology* 83:340–63.
- Meyer, J. W., W. R. Scott, and T. E. Deal. 1983. "Institutional and Technical Sources of Organizational Structure: Explaining the Structure of Educational Organizations." Pp. 45–67 in *Organizational Environments: Ritual and Rationality*, edited by J. W. Meyer and W. R. Scott. Beverly Hills, CA: Sage.
- Meyer, J. W., W. R. Scott, D. Strang, and A. L. Creighton. 1994. "Bureaucratization Without Centralization: Changes in the Organizational System of U.S. Public Education, 1940–1980." Pp. 179–205 in *Institutional Environments and Organizations: Structural Complexity and Individualism*, edited by W. R. Scott, J. W. Meyer, and Associates. Thousand Oaks, CA: Sage.
- Mezias, S. J. 1990. "An Institutional Model of Organizational Practice: Financial Reporting at the Fortune 200." *Administrative Science Quarterly* 35:431–57.
- Milstein, M., S. Hart, and A. York. 2002. "Coercion Breeds Variation: The Differential Impact of Isomorphic Pressures on Environmental Strategies." Pp. 151–72 in *Organizations, Policy and the Natural Environment: Institutional and Strategic Perspectives*, edited by A. Hoffman and M. Ventresca. Stanford: Stanford University Press.
- Minkoff, D. C. 1994. "From Service Provision to Institutional Advocacy: The Shifting Legitimacy of Organizational Forms." *Social Forces* 4:943–69.
- Mizruchi, M. S. and L. C. Fein. 1999. "The Social Construction of Organizational Knowledge: A Study in the Uses of Coercive, Mimetic, and Normative Isomorphism." *Administrative Science Quarterly* 44(4):653–83.

- Mohr, J. 1998. "The Classificatory Logics of State Welfare Systems: Towards a Formal Analysis." Pp. 207–38 in *Public Rights, Public Rules: Constituting Citizens in the World Polity and National Policy*, edited by C. McNeely. New York: Garland Publishing.
- Mohr, J. and V. Duquenne. 1997. "The Duality of Culture and Practice: Poverty Relief in New York City, 1888–1917." *Theory and Society* 26:305–356.
- Mohr, J. and F. Guerra-Pearson. Forthcoming. "Duality of Niche and Form: The Differentiation of Institutional Space in New York City, 1888–1917." In *How Institutions Change*, edited by W. W. Powell and D. Jones. Chicago: University of Chicago Press.
- Moore, K. 1996. "Organizing Integrity: American Science and the Creation of Public Interest Organizations, 1955–1975." *American Journal of Sociology* 101(6):1592–1627.
- Morrill, C. Forthcoming. "Institutional Change and Interstitial Emergence: The Case of Alternative Dispute Resolution in American Law, 1965–1995." In *How Institutions Change*, edited by W. W. Powell and D. Jones. Chicago: University of Chicago Press.
- Oliver, C. 1991. "Strategic Responses to Institutional Processes." *Academy of Management Review* 16(1):145–79.
- Orru, M., N. W. Biggart, and G. Hamilton. 1991. "Organizational Isomorphism in East Asia." Pp. 361–89 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: University of Chicago Press.
- Owen-Smith, J. and W. W. Powell 2001. "Careers and Contradictions: Faculty Responses to the Transformation of Knowledge and Its Uses in the Life Sciences." *The Transformation of Work*, a special edition of *Research in the Sociology of Work* 10:109–40.
- Palmer, D. and B. Barber. 2001. "Challengers, Elites and Owning Families: A Social Class Theory of Corporate Acquisitions in the 1960s." *Administrative Science Quarterly* 1:87–140.
- Palmer, D. A., P. D. Jennings, and X. Zhou. 1993. "Late Adoption of the Multidivisional Form by Large U.S. Corporations: Institutional, Political and Economic Accounts." *Administrative Science Quarterly* 38:100–31.
- Porter, T. M. 1995. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. Princeton, NJ: Princeton University Press.
- Powell, W. W. 1991. "Expanding the Scope of Institutional Analysis." Pp. 183–203 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: University of Chicago Press.
- Powell, W. W. and P. J. DiMaggio, eds. 1991. *The New Institutionalism in Organizational Analysis*. Chicago: University of Chicago Press.
- Raeburn, N. 2004. *Changing Corporate America from the Inside Out: Gay and Lesbian Workplace Rights*. Minneapolis: University of Minnesota Press.
- Ramirez, F. O. and M. J. Ventresca. 1992. "Building the Institution of Mass Schooling: Isomorphism in the Modern World." Pp. 47–59 in *The Political Construction of Education: The State, School Expansion, and Economic Change*, edited by B. Fuller and R. Rubinson. New York: Praeger.
- Rao, H. 1994. "The Social Construction of Reputation: Certification Contests, Legitimation, and the Survival of Organizations in the American Automobile Industry: 1895–1912." *Strategic Management Journal* 15:29–44.
- . 1998. "Caveat Emptor: The Construction of Nonprofit Consumer Watchdog Organizations." *American Journal of Sociology* 103(4):912–61.
- Rao, H., C. Morrill, and M. Zald. 2000. "Power Plays: How Social Movements and Collective Action Create New Organizational Forms." *Research in Organizational Behavior* 22:237–81.
- Rao, H. and K. Sivakumar. 1999. "Institutional Sources of Boundary-Spanning Structures: The Establishment of Investor Relations Departments in the Fortune 500 Industrials." *Organization Science* 10(1):27–42.
- Ruef, M. 2000. "The Emergence of Organizational Forms: A Community Ecology Approach." *American Journal of Sociology* 106:658–714.
- Ruef, M. and W. R. Scott. 1998. "A Multidimensional Model of Organizational Legitimacy: Hospital Survival in Changing Institutional Environments." *Administrative Science Quarterly* 43(4):877–904.
- Sabel, C. F. and J. Zeitlin, eds. 1997. *Worlds of Possibility: Flexibility and Mass Production in Western Industrialization*. New York: Cambridge University Press.
- Sahlin-Andersson, K. 1996. "Imitating by Editing Success: The Construction of Organizational Fields." Pp. 69–92 in *Translating Organizational Change*, edited by B. Carniawaska and G. Sevón. Berlin: Walter de Gruyter.
- Schlesinger, M. 1998. "Mismeasuring the Consequences of Ownership: External Influences and the Comparative Performance of Public, For-Profit, and Private Nonprofit Organizations." Pp. 85–113 in *Private*

- Action and the Public Good*, edited by W. W. Powell and E. S. Clemens. New Haven, CT: Yale University Press.
- Schneiberg, M. 1999. "Political and Institutional Conditions for Governance by Association: Private Order in American Fire Insurance." *Politics and Society* 27(1):67–103.
- . 2002. "Organizational Heterogeneity and the Production of New Forms: Politics, Social Movements and Mutual Companies in American Fire Insurance, 1900–1930." *Research in the Sociology of Organizations* 19:39–89.
- . 2005. "Combining New Institutionalisms: Explaining Institutional Change in American Property Insurance." *Sociological Forum* 1:93–137.
- . 2006. "What's on the Path? Path Dependence, Organizational Diversity and the Problem of Institutional Change in the US Economy, 1900–1950." *Socio-Economic Review* 5(1).
- Schneiberg, M. and T. Bartley. 2001. "Regulating American Industries: Markets, Politics, and the Institutional Determinants of Fire Insurance Regulation." *American Journal of Sociology* 107:101–46.
- Schneiberg, M. and S. A. Soule. 2005. "Institutionalization as a Contested, Multilevel Process: The Case of Rate Regulation in American Fire Insurance." In *Social Movements and Organization Theory: Building Bridges*, edited by G. Davis, D. McAdam, W. R. Scott, and M. Zald. Cambridge: Cambridge University Press.
- Scott, J. C. 1990. *Domination and the Arts of Resistance: Hidden Transcripts*. New Haven, CT: Yale University Press.
- Scott, W. R. 1994. "Institutional Analysis: Variance and Process Theory Approaches." Pp. 81–99 in *Institutional Environments and Organizations: Structural Complexity and Individualism*, edited by, W. R. Scott and J. W. Meyer. Thousand Oaks, CA: Sage.
- . 1995. *Institutions and Organizations*. Thousand Oaks, CA: Sage.
- Scott, W. R., M. Ruef, P. J. Mendel, and C. A. Caronna. 2000. *Institutional Change and Health Care Organizations: From Professional Dominance to Managed Care*. Chicago: University of Chicago Press.
- Sine, W. and R. David. 2003. "Environmental Jolts, Institutional Change, and the Creation of Entrepreneurial Opportunity in the US Electric Power Industry." *Research Policy* 32:185–207.
- Sine, W., H. Haveman, and P. Tolbert. 2005. "Risky Business; Entrepreneurship in the New Independent Power Sector." *Administrative Science Quarterly* 50:200–32.
- Singh, J. V., D. J. Tucker, and R. J. House. 1986. "Organizational Legitimacy and the Liability of Newness." *Administrative Science Quarterly* 31:171–93.
- Singh, J. V., D. J. Tucker, and A. G. Meinhard. 1991. "Institutional Change and Ecological Dynamics." Pp. 390–422 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. DiMaggio. Chicago: University of Chicago Press.
- Skrentny, J. D. 1996. *The Ironies of Affirmative Action: Politics, Culture, and Justice in America*. Chicago: University of Chicago Press.
- Soule, S. A. Forthcoming. "Divestment by Colleges and Universities in the United States: Institutional Processes Toward Isomorphism." In *How Institutions Change*, edited by W. W. Powell and D. Jones. Chicago: University of Chicago Press.
- Soule, S. A. and Y. Zylan. 1997. "Runaway Train: The Diffusion of State-Level Reforms in ADC/AFDC Eligibility Requirements." *American Journal of Sociology* 103:733–62.
- Soysal, Y. N. 1994. *Limits of Citizenship: Migrants and Postnational Membership in Europe*. Chicago: University of Chicago Press.
- Stark, D. 1996. "Recombinant Property in Eastern European Capitalism." *American Journal of Sociology* 101(4):993–1027.
- Stearns, L. B. and K. D. Allan. 1996. "Economic Behavior in Institutional Environments: The Corporate Merger Wave of the 1980s." *American Sociological Review* 61(4):699–718.
- Stevens, M. 2001. *Kingdom of Children: Culture and Controversy in the Homeschooling Movement*. Princeton, NJ: Princeton University Press.
- Stinchcombe, A. L. 1978. *Theoretical Methods in Social History*. New York: Academic Press.
- Strang, D. 1990. "From Dependency to Sovereignty: An Event History Analysis of Decolonization 1870–1987." *American Sociological Review* 55:846–60.
- Strang, D. and P. M. Y. Chang. 1993. "The International Labor Organization and the Welfare State: Institutional Effects on National Welfare Spending, 1960–80." *International Organization* 47:235–62.
- Strang, D. and J. W. Meyer. 1994. "Institutional Conditions for Diffusion." Pp. 100–12 in *Institutional Environments and Organizations: Structural Complexity and Individualism*, edited by W. R. and J. W. Meyer. Thousand Oaks, CA: Sage.
- Strang, D. and S. A. Soule. 1998. "Diffusion in Organizations and Social Movements: From Hybrid Corn to Poison Pills." *Annual Review of Sociology* 24:265–90.



- Strang, D. and N. B. Tuma. 1993. "Spatial and Temporal Heterogeneity in Diffusion." *American Journal of Sociology* 99:614–39.
- Stryker, R. 2000. "Legitimacy Processes as Institutional Politics: Implications for Theory and Research in the Sociology of Organizations." *Research in the Sociology of Organizations* 17:179–223.
- Suchman, M. C. 1995. "Localism and Globalism in Institutional Analysis: The Emergence of Contractual Norms in Venture Finance." Pp. 39–63 in *The Institutional Construction of Organizations: International and Longitudinal Studies*, edited by W. R. Scott and S. Christensen. Thousand Oaks, CA: Sage.
- . 1995. "Managing Legitimacy: Strategic and Institutional Approaches." *Academy of Management Review* 20:571–610.
- Suchman, M. C. and L. B. Edelman. 1996. "Legal Rational Myths: The New Institutionalism and the Law and Society Tradition." *Law and Social Inquiry* 21:903–42.
- Sutton, J. R. and F. Dobbin. 1996. "The Two Faces of Governance: Responses to Legal Uncertainty in U.S. Firms, 1955 to 1985." *American Sociological Review* 61:794–811.
- Sutton, J. R., F. Dobbin, J. W. Meyer, and W. R. Scott. 1994. "The Legalization of the Workplace." *American Journal of Sociology* 99:944–71.
- Sven Steinmo, K. T. and F. Longstreth, eds. 1992. *Structuring Politics: Historical Institutionalism in Comparative Analysis*. Cambridge: Cambridge University Press.
- Thornton, P. 2001. "Personal Versus Market Logics of Control: A Historically Contingent Theory of the Risk of Acquisition." *Organizational Science* 12:294–311.
- Thornton, P. and W. Ocasio. 1999. "Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958–1990." *American Journal of Sociology* 105:801–43.
- Tolbert, P. S. and L. G. Zucker. 1983. "Institutional Sources of Change in the Formal Structure of Organizations: The Diffusion of Civil Service Reform, 1880–1935." *Administrative Science Quarterly* 28:22–39.
- Washington, M. and M. J. Ventresca. 2004. "How Organizations Change: The Role of Institutional Support Mechanisms in the Incorporation of Higher Education Visibility Strategies, 1874–1995." *Organization Science* 15(1):82–97.
- Westney, D. E. 1987. *Imitation and Innovation: The Transfer of Western Organizational Patterns to Meiji Japan*. Cambridge, MA: Harvard University Press.
- Zelizer, V. 1979. *Morals and Markets: The Development of Life Insurance in the United States*. New York: Columbia University Press.