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“The New Institutionalisms in
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3 The New Institutionalisms in Economics and Sociology

Victor Nee

THE FOCUS on institutions as a foundational concept in the social sciences has given rise to a variety of new institutionalist approaches. Not since the behavioral revolution of the 1950s has there been so much interest in a cross-disciplinary concept, one that offers a common theme for exchange and debate. The writings of Ronald Coase, Douglass North, and Oliver Williamson on the endogenous emergence and evolution of economic institutions have inspired a broadly based movement in economics. In sociology, neoinstitutionalists—principally John Meyer, Richard Scott, Paul DiMaggio, and Walter Powell—have redirected the study of organizations by analyzing how institutional environment and cultural beliefs shape their behavior. In a parallel shift of analytic attention, economic sociologists—Peter Evans, Neil Fligstein, Richard Swedberg, and myself—argue for a new focus to explain how institutions interact with social networks and norms to shape and direct economic action. The common starting point of these approaches is the claim that institutions matter and that understanding institutions and institutional change is a core agenda for the social sciences.

This chapter does not seek comprehensiveness in its coverage of the new institutionalisms in the social sciences.¹ Instead I focus selectively on the new institutionalisms in economics and sociology as a means to lay out core features of a new institutional economic sociology, which brings back into the research agenda a crucial focus on explaining the workings of shared beliefs, norms, and institutions in economic life. My aim is to integrate a focus on social relations *and* institutions into a modern sociological approach to the study of economic behavior by highlighting the mechanisms that regulate the manner in which formal elements of institutional structures in combination with informal social organization of networks and norms facilitate, motivate, and govern economic action.² Thus both distal and proximate causal mechanisms are addressed and incorporated into a comparative

institutional analysis of economic life. This entails revisiting Weber's ([1904–5] 2002; [1922] 1968) view that rationality is motivated and guided by systems of shared beliefs (religious and cultural), custom, norms, and institutions. A conceptual framework underscoring such context-bound rationality serves as the foundation for examining the emergence, persistence, and transformation of institutional structures.

NEW INSTITUTIONAL ECONOMICS

In the view of new economic institutionalists, the old institutionalism offered penetrating and insightful descriptions of economic institutions (Veblen 1909 [1899], 1934; Mitchell 1937; Commons 1934, 1957), but ultimately failed in the bid to shape the direction of modern economics. Instead, it remained a dissident movement within economics, which, Coase (1984, 230) quipped, produced a “mass of descriptive material waiting for a theory, or a fire.” With the limitations of the old economic institutionalism in mind, he noted that “what distinguishes the modern institutional economists is not that they speak about institutions . . . but that they use standard economic theory to analyze the working of these institutions and to discover the part they play in the operations of the economy.” Kenneth Arrow (1987, 734) offers a similar assessment in his answer to his rhetorical question, “Why did the older institutionalist school fail so miserably, though it contained such able analysts as Thorstein Veblen, J. R. Commons, and W. C. Mitchell?” The new institutional economics has been influential, he thinks, not because it offers “new answers to the traditional questions of economics—resource allocation and the degree of utilization,” but because it uses economic theory to answer “new questions, why economic institutions emerged the way they did and not otherwise.”

Without question new economic institutionalists

have sought to differentiate themselves from the old institutional economics by adapting, rather than rejecting, as did the earlier institutionalists, neoclassical economic theory. First, Coase's theory of transaction cost corrected an important omission in neoclassical economics, and shows that Pigou was wrong in arguing that taxation and regulation are the only effective way to deal with negative externalities.³ His use of transaction cost reasoning is not essentially different from Stigler's adding information costs to correct neoclassical theory. Second, the idea that human agency is "intentionally rational, but limitedly so" (Simon 1957, xxiv) can be incorporated into a "thick" view of rational choice as context-bound; as Posner (1993, 80) points out, "rationality is not omniscience."⁴ Third, through concepts like "asset specificity" and "opportunism," Williamson extended microeconomic reasoning to understudied topics in economic such as vertical integration, corporate governance, and long-term contracts to show that transaction cost economizing can generate predictions about the organizational boundaries and governance structures of firms competing for survival and profit in a competitive environment. Fourth, North's account of institutional change views organizations as rational actors in pursuing marginal gains stemming from changes in relative prices.

The differences between the old and new institutionalisms may have been overstated, however (Rutherford 1994).⁵ The old economic institutionalists were not as lacking in theory as Coase's quip suggests. Veblen's concept of cumulative causation is consistent with modern ideas about explanation and path dependence. Mitchell (1927), who founded the National Bureau of Economic Research (NBER), was not a dust-bowl empiricist, but espoused the idea of research driven by middle-range theory. Both old and new economic institutionalisms argue that the mathematical formalism of neoclassical economics has contributed little to understanding real-world economic behavior. Both espouse a realist orientation, which, as Coase (1984, 230) writes, seeks to study economic behavior "within the constraints imposed by real institutions."⁶

Figure 1 provides a schematic view of the causal model posited by the new institutional economics, as adapted by Williamson (1994, 80) from Richard Scott. In this model, the institutional environment is shaped by the rules of the game (see North 1981). The downward arrow indicates that if shifts in the broad parameters of the institutional

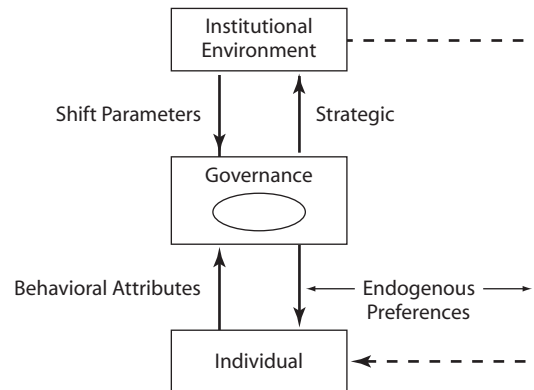


FIGURE 1. A model of new institutional economics

environment—property rights, legal change, and norms—result in altering the relative prices for firms, this induces changes in governance structures or efforts by the firm to lobby government. The model includes a purposive actor whose behavioral attributes—"self-interest seeking with guile"—lie behind many of the transaction costs that governance structures are designed to address.

The Place of Transaction Cost Reasoning

The core concept of the new institutional economics is transaction cost—the cost of negotiating, securing, and completing transactions in a market economy. In Coase's (1988, 15) view, neoclassical economics "is incapable of handling many of the problems to which it purports to give answers" because it assumes a world of zero transaction cost in which institutions are superfluous to economic analysis:

In order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on. These operations are often extremely costly, sufficiently costly at any rate to prevent many transactions that would be carried out in a world in which the pricing system worked without cost. (Coase 1960, 15)

Hence in contrast to the world of zero transaction costs assumed in neoclassical economics, transaction cost reasoning provides a method enabling economists to "study the world that exists."

In "The Nature of the Firm" (1937) Coase applied transaction cost reasoning to explain the en-

ogenous existence of the firm in a competitive market economy. If market transactions were costless, Coase argued, then there would not be sufficient motivation for entrepreneurs to operate firms. But, in fact, all solutions to the problem of measuring the performance of agents and enforcing contracts are costly. Information asymmetry and uncertainty are found in all institutional environments; hence the same agency problems found in markets also apply to the firm. The distinguishing characteristic of the firm is the suspension of the price mechanism. The entrepreneur has the power and authority within the limits set by the employment contract to direct workers from one part of the firm to another. Thus “firms will emerge to organize what would otherwise be market transactions whenever their costs are less than the costs of carrying out the transactions through the market” (1988, 7). In other words, the reason for the firm’s existence is that the “operation of a market costs something,” and the firm saves on this cost.

The new institutional economics includes a diverse group of economists with important differences and ongoing debates.⁷ I focus here on three distinctive approaches—pioneered by Williamson, North, and Greif—that are of interest to a new institutional economic sociology. The unifying theme of all three is the proposition that social institutions matter to economic actors because they shape the structure of incentives.

Williamson builds on Coase’s insight that information asymmetry and uncertainty make credible commitment to agreements difficult to secure, integrating this insight with other literatures.⁸ His synthesis emphasizes that corporate governance is principally concerned with addressing the problem of opportunism and reducing the risk of malfeasance in agents’ performance.⁹ By examining the comparative costs of planning, adapting, and monitoring agents’ performance, Williamson derives testable predictions about alternative governance structures. His prediction turns on three types of asset specificity—site, physical, and human—that firms encounter. Because firms compete in Darwinian-like selection in markets to survive and remain profitable (Hayek 1945), they are under continuous pressure to adapt by economizing on transaction costs. Hence, where asset specificity is greater, principals and agents “will make special efforts to design” a governance structure with “good continuity properties” to reinforce incentives for credible commitments to agreements. By contrast, if “assets are nonspecific, markets enjoy

advantages in both production cost and governance cost respects” Williamson (1981, 558).¹⁰ Williamson’s contribution has been to build a theory-driven research program in which core hypotheses derived from Coase have been empirically verified.

A second research program stimulated by Coase’s seminal essays emphasizes the importance of property rights in shaping the incentive structure (Cheung 1970, 1974; North and Thomas 1973; Alchian and Demsetz 1973; North 1981). Cheung showed that in a neoclassical world of zero transaction costs, private property rights can be dropped without negating the Coase theorem, an insight that North extended to develop a new institutionalist property rights approach to explain economic performance. Because transaction costs make up a significant part of the cost of production and exchange, North reasoned that alternative institutional arrangements can make the difference between economic growth, stagnation, or decline. The first of the new institutionalists to explicitly disavow the efficiency assumption of the functionalist theory of institutions (Schotter 1981), North asserts that because incentives are structured in institutional arrangements, perverse incentives abound and give rise to property rights that discourage innovation and private entrepreneurship. It is frequently profitable and more rewarding for political actors to devise institutions that redistribute wealth, which can dampen incentives for innovation and private enterprise.

North’s approach is state-centered in that it focuses analytic attention on the role of the state in devising the underlying structure of property rights in society.¹¹ In his view, the central task in explaining economic growth is to specify the events and conditions that provide incentives for political actors to establish formal institutional arrangements supporting efficient property rights.¹² In the rise of the West, this entailed the dilution of state control over resources and the emergence of some form of political pluralism.¹³

Conceived as “humanly devised constraints that structure political, economic and social interactions,” institutions in North’s view (1991, 97) consist of formal rules like constitutions, laws, and property rights and also informal elements such as “sanctions, taboos, customs, traditions and codes of conduct.” Although he was among the first to point to the informal elements of institutions, North has consistently emphasized the “fundamental rules of the game” or the basic ground rules provided by constitutions and law. These are

the rules that govern political actors and shape the structure of property rights that define and specify the rules for competition and cooperation in markets. The importance of formal rules is amplified in modern market economies, where, North argues, the growth of long-distance trade, specialization, and division of labor contributes to agency problems and contract negotiation and enforcement problems. Though interpersonal ties, social norms, and sanctions such as ostracism are very important elements of institutional arrangements, they are not sufficient in themselves to enforce credible commitments to agreements, because “in the absence of effective impersonal contracting the gains from defections are great enough to forestall the development of complex exchange” in modern economies (North 1991, 100).

North’s theory of institutional change applies standard marginalist theory in its emphasis on changing relative prices. His economic history of the rise of the West showed that institutional change “comes from a change in the relative bargaining power of rulers versus constituents (or rulers versus rulers), and, broadly speaking, changes arise because of major, persistent changes in relative prices” (1984, 260). Changes in relative prices are in turn often driven by demographic change, change in the stock of knowledge, and change in military technology. The dynamics of institutional change in North’s theory stem from a continuous interaction between institutions and organizations within the context of competition over scarce resources. Because institutions are self-reinforcing, vested interests in the existing stock of institutions reinforce path dependence in efforts to revise the rules. Institutional innovations will come from states rather than constituents because states generally do not have a free-rider problem (except sometimes in international affairs), whereas individuals and organizational actors are limited in their capacity to implement large-scale changes due to the problem of free riding.¹⁴ Entrepreneurs are the agents of change, and organizations are the players who respond to changes in relative prices, which include changes in the ratio of factor prices, changes in the cost of information, and changes in technology. Organizations are agents of change when they lobby the state to initiate institutional innovations that enable economic actors to survive and profit from changes in relative price.¹⁵

Critical of North’s approach, Greif (forthcoming) argues that its focus on formal rules and state power does not illuminate why economic actors follow some rules but not others. Although North

acknowledges the role of ideology, cultural beliefs, norms, and conventions, Greif contends that his approach to institutional analysis does not provide an appropriate framework to study how actors are endogenously motivated to follow rules not enforced by the state. North relegates beliefs and norms to a black box of informal constraints, and is unable to show how informal rules and their enforcement combine with formal rules to enable, motivate, and guide economic behavior. Greif’s own approach, applying game theory to examine how cultural beliefs shape the principal-agent relationship, giving rise to and sustaining distinct economic institutions, is discussed below, in the section on the sociological turn in new institutional economics.

A COUNTERPERSPECTIVE FROM ECONOMIC SOCIOLOGY

In his influential article “Economic Action and Social Structure” (1985) Granovetter points out that “Actors do not behave or decide as atoms outside a social context, nor do they adhere slavishly to a script written for them by the particular intersection of social categories that they happen to occupy. Their attempts at purposive action are instead embedded in concrete, ongoing systems of social relations” (487). He proffers the view that “social relations, rather than institutional arrangements or generalized morality [e.g. shared beliefs and norms], are mainly responsible for the production of trust in economic life” (491). He criticizes Williamson’s use of transaction cost reasoning in explaining the boundaries of firms for what he views as unrealistic assumptions of under- and oversocialized conceptions of human action, “both hav[ing] in common a conception of action and decision carried out by atomized actors” (485). Williamson’s “state of nature” view of markets, Granovetter contends, is devoid of reference to the history of concrete relationships and network structures, failing to take into account “the extent to which concrete personal relations and the obligations inherent in them discourage malfeasance, quite apart from institutional arrangements” (489). Williamson’s Hobbesian conception of hierarchical authority is also on shaky ground, given the extent to which congealed social networks in firms structure power relations; hence, “Williamson vastly overestimates the efficacy of hierarchical power (‘fiat,’ in his terminology) within organizations” (499).

Granovetter thus contributed the seminal theme of *embeddedness* to the revitalization of the sociological study of economic life. Asserting that even when economics tries to take into account social factors, its conception of human action remains deeply flawed, since both the under- and over-socialized versions commonly found in economic analysis assume atomized actors, Granovetter's argument tended to frame this revitalization of economic sociology in terms of a disciplinary-based competition with economics. In contrast to transaction cost economics' emphasis on hierarchies in solving the problem of trust, economic sociologists guided by the embeddedness approach "pay careful and systematic attention to the actual patterns of personal relations by which economic transactions are carried out" (504). The focus on concrete interpersonal ties is likely to show "that both order *and* disorder, honesty *and* malfeasance have more to do with structures of such relations than they do with organizational form" (502–3). Interpersonal ties play a crucial role in both markets and firms in securing trust and serving as a conduit for useful information.¹⁶

We must note, however, that interpersonal ties entail costs, whether in avoiding and resolving conflict, or in the accumulation of obligations. Indeed, social relations can be very costly when conflict, disorder, opportunism, and malfeasance erupt in networks. Transaction cost analysis suggests that entrepreneurs will take such costs into account in considering alternative forms of economic organization, including network-based quasi firms. Despite the contrast in focus, the transaction cost and the embeddedness approaches appear to agree that firms generally prefer social contexts where negotiating agreements is less problematic and costly. In essence, the embeddedness approach differs from transaction cost economics in its emphasis on informal solutions to address the problem of trust, as opposed to formal institutional arrangements. Not surprisingly therefore, Williamson's (1994, 85) response to Granovetter's essay was, "Transaction cost economics and embeddedness reasoning are evidently complementary in many respects."

While Granovetter's embeddedness approach laid the basis for the revitalization of the sociological study of economic life, his sole emphasis on the nature of interpersonal ties and the structure of networks contributed to a narrowing of the scope of economic sociology from the broader institutional canvass pioneered by its founders. The causal imagery of the embeddedness approach, positing variation in the underlying structure of

concrete social relationships to explain the workings of markets and firms, relies on a conceptual framework that limits economic sociology's explanatory power to proximate causes.¹⁷ Moreover, the approach requires the construction of a taxonomy of structural contexts as a necessary step to become sufficiently abstract to generate a powerful analytical framework.¹⁸ By contrast, the classical sources of economic sociology in the writings of Weber, Schumpeter, and Polanyi outlined analytical approaches that pointed to a broad institutional canvass of distal and deeper causal forces.

Another limitation is the absence of a clear specification of mechanisms that explain why economic actors sometimes decouple from ongoing networks to pursue economic interests. If, as Granovetter asserts, a dense network of personal ties does more than institutional arrangements to secure trust and useful information crucial for complex transactions, then why do economic actors routinely decouple from interpersonal ties to transact in market exchanges? A defining feature of an advanced twenty-first-century market economy as an institutional order is its capacity to enable economic agents to switch virtually seamlessly between transactions within close-knit networks and with strangers. In sum, the social relations rather than institutions orientation of this embeddedness approach introduced an element of indeterminacy in the new economic sociology, especially in the context of a global market economy where the volume of cross-national transactions has increased through innovations in information technology enabling complex transactions between strangers (Kuwabara, forthcoming).

THE SOCIOLOGICAL TURN IN NEW INSTITUTIONAL ECONOMICS

Central among sociology's concerns from its origins as a social science has been the goal of explaining institutions, as exemplified in Max Weber's and Émile Durkheim's seminal works on the subject. It is not surprising, therefore, that there has been something of a "sociological turn" in economics, motivated by difficulties in explaining institutions and institutional change within the framework of economic theory (Furubotn and Richter 1993). If a sociological turn is in progress, how is it manifested in the recent work of new institutional economists? To what extent has economic sociology influenced their thinking?

In his article "The New Institutional Econom-

ics: Taking Stock, Looking Ahead,” Williamson (2000, 595) confesses that “we are still very ignorant about institutions” despite the progress made over the past quarter-century. “Chief among the causes of ignorance is that institutions are very complex. . . . pluralism is what holds promise for overcoming our ignorance.” Williamson’s multi-level causal model of the economy outlines “four levels of social analysis” in which the higher level imposes constraints on the lower level. “The top level,” he writes, “is the social embeddedness level. This is where the norms, customs, mores, traditions, etc. are located. . . . North poses the query, ‘What is it about informal constraints that gives them such a pervasive influence upon the long-run character of economies?’ (1991, 111). North does not have an answer to that perplexing question, nor do I.” This embeddedness level influences the lower three levels: level 2, institutional environment; level 3, governance; level 4, resource allocation and employment.¹⁹ Hence it is important to identify and explicate “the mechanisms through which informal institutions arise and are maintained” (596). Thus the embeddedness perspective now is in the process of being incorporated into the new institutional economics. But Williamson acknowledges that though level 1 shapes the parameters of what economists study, it “is taken as given by most institutional economists.”

A sociological turn is apparent in the influence of Weber, Marx, Polanyi, and Parsons on North’s conception of institutions as elaborated in *Structure and Change in Economic History* (1981). More recently, in response to confronting the difficulties of implementing institutional change as an economic advisor to reformers in the transition economies of Eastern Europe, North acknowledges a greater interest in understanding the informal elements of institutions embedded in social relations. Devising new formal rules to institute market economies in Eastern Europe and the former Soviet Union has had only limited success; this has pointed to the intractable nature of social arrangements embedded in interpersonal ties, cultural beliefs, norms, and old regime institutional arrangements studied by economic sociologists.²⁰ Clearly, “Formal rules are an important part of the institutional framework but only a part. To work effectively they must be complemented by informal constraints (conventions, norms of behavior) that supplement them and reduce enforcement costs. If the formal rules and informal constraints are inconsistent with each other the resulting tension is going to induce political instability. But we

know very little about how informal norms evolve” (North 1993, 20).

A sociological turn is further evident in new theorizing on the importance of cognitive mechanisms. Because beliefs and norms are unobservable, Greif argues, integrating social variables has been hampered by the fact that any behavior can be explained by ad hoc assertions about the beliefs and norms that motivate it. The integration of social variables in a manner consistent with economic methodology requires an analytical framework that can reconcile two seemingly contradictory views of institutions: the view of institutions common in economics as constraints created by individuals and the structural view of institutions as social facts external to the individuals common in sociology. Organizational new institutionalists focus on diffusion of rules, scripts, and models (Meyer and Rowan 1977), whereas some new institutional economists offer game theoretic models of endogenous motivation stemming from systems of shared beliefs and norms (Greif [1994] 1998).²¹ Although game theory does not offer a theory of institutions, Greif argues that it does offer an appropriate analytical framework to incorporate sociological variables into economic analysis of institutions. It does not provide a theory of the constraints defining the parameters of strategic interaction, but it offers deep insights on the dynamics of choice within constraints. It provides a theory of social behavior in which actors’ optimal course of behavior depends on the behavior and expected behavior (cultural beliefs and social norms) of others.²² It also incorporates a realistic view of the social world in which information is asymmetric and actors are interdependent and motivated to act in a particular manner. It offers a method to examine how strategic interactions give rise to and sustain self-enforcing institutions. Greif ([1994] 1998) has extended its application to the comparative institutional analysis of economic behavior using cases studies drawn from medieval European and Mediterranean economic history. He models the recurrent strategic social interactions that sustain institutions in equilibrium.²³

Overall, economists interested in studying social institutions have found that the more they come to understand the workings of institutions as endogenous to social processes in society, the more their work must address questions that lead them to turn to sociology for answers. New institutional economists apparently agree that advances in understanding institutions requires integrating sociological variables—shared beliefs, norms, and

social relationships—to understand motivation to follow rules.

NEW INSTITUTIONALISM IN ECONOMIC SOCIOLOGY

In 1898 Émile Durkheim founded the *Année sociologique*, establishing modern sociology as a discipline dedicated to the comparative study of institutions. Since then, Durkheim's conception of institutions as systems of shared beliefs, norms, and collective sentiments has persisted to shape the sociological approach to their study. Max Weber similarly pioneered the interpretive study of societal institutions through his comparative analysis of cultural beliefs, economy, and polity. Reinterpreting the classics of European sociology, Talcott Parsons later synthesized the institutionalist ideas associated with Durkheim, Weber, Pareto, and Tönnies into a structural-functionalist framework for modern sociology. He too conceived of institutions as organized systems of cultural beliefs, norms, and values common to most individuals in a society, systems giving rise to socially structured interests that organize incentives for individuals. His outline of a theory of institutions adumbrated the idea of choice within institutional constraints. Parsons's *Economy and Society* (1956), coauthored with Neil Smelser, established economic sociology as a subfield in American sociology. Like Parsons, Robert K. Merton viewed institutions as structures of opportunity, shaping the interests and strategic action of individuals.

The new sociological institutionalism reformulates the earlier European and American institutionalist approaches in sociology through the lens of a different generation of American sociologists. Sociological new institutionalism has been closely identified with the perspective on organizational analysis pioneered by Meyer and Rowan (1977) and many other organizational theorists of the Stanford "legitimacy" school, and canonized in a widely used anthology, *The New Institutionalism in Organizational Analysis*, edited by Powell and DiMaggio (1991). DiMaggio and Powell (1983) introduce into neoinstitutional theory the influence of Max Weber's and Herbert Simon's ideas, evident in their treatment of how organizational fields emerge and then constrain the action of agents under conditions of uncertainty. The elements of a new institutional economic sociology I lay out below include ideas and insights from this organizational research program, which are inte-

grated into a framework of sociological research that examines context-bound rationality shaped by custom, networks, norms, cultural beliefs, and institution arrangements, as in *The New Institutionalism in Sociology*, edited by Brinton and Nee (1998). The new institutional economic sociology builds on the pioneering work of Barnard ([1938] 1964), Homans (1950), and Blau (1955), analyzing the manner in which interpersonal ties in firms and markets interact with formal institutional arrangements (Nee and Ingram 1998).

For a new institutional economic sociology to make advances in explaining the role of institutions and institutional change, it is important to have a definition of institutions appropriate for analysis from the sociological perspective that emphasizes the causal effect of social structures. Institutions are not simply the formal and informal constraints that specify the structure of incentives, as defined by North (1981), or discrete institutional elements—beliefs, norms, organizations, and communities—of a social system (Greif, forthcoming), but fundamentally they involve actors, whether individuals or organizations, who pursue real interests in concrete institutional structures. An institution in this view is defined as *a dominant system of interrelated informal and formal elements—custom, shared beliefs, conventions, norms, and rules—which actors orient their actions to when they pursue their interests*. In this view, institutions are social structures that provide a conduit for collective action by facilitating and organizing the interests of actors and enforcing principal-agent relationships. It follows from this interest-related definition that institutional change involves not simply remaking the formal rules, but fundamentally requires the realignment of interests, norms, and power.²⁴

As economic sociology moves beyond the earlier perspective on embeddedness, the challenge is to specify and explicate the social mechanisms determining the relationship between the informal social organization of close-knit groups and the formal rules of institutional structures monitored and enforced by organizations and states. The new institutional economics has contributed to explaining the emergence and maintenance of formal institutional arrangements that shape economic behavior. However, as North (1993, 12) acknowledges, economics has largely "ignored the informal constraints of conventions and norms of behavior." Economists pose probing questions about the social dimensions of economic life as they encounter the limits of economic analysis of institutions (North 1991; Williamson 2000). Their ques-

tions address the manner in which informal social organization and formal rules *combine* to shape the performance of organizations and economies. With recent advances in application of game theory, economists recently have begun to incorporate informal institutional elements into their models of economic performance (Greif, forthcoming). While economic sociologists may not have all the answers, clearly in cross-disciplinary research aimed at explaining the capacity of social institutions to facilitate, motivate, and govern economic behavior, sociology's comparative advantage is to address questions that focus on the social mechanisms that shape economic behavior. As Smelser and Swedberg point out, "the concept of embeddedness remains in need of greater theoretical specification" (1994, 18).

Figure 2 provides a schematic representation of the multilevel causal model for the new institutionalism in economic sociology, which is related to, but different from, the new institutionalist models proposed by Williamson (1994). The institutional environment—the formal regulatory rules monitored and enforced by the state that govern property rights, markets, and firms—imposes constraints on firms through market mechanisms and state regulation, thus shaping the incentives structure. The *institutional mechanisms* operating at this level are distal, as opposed to the proximate network mechanisms at the micro- and meso-levels of individuals and their interpersonal ties. Institutional mechanisms encompass the deeper causes because they shape the incentive structure for organizations and individuals, and thereby the *contexts* in which proximate mechanisms operate. The institutional-level mechanisms posited by economists and sociologists, despite differences in behavioral assumptions and conceptual language, are not as far apart as is commonly perceived. New institutional economists emphasize incentives structured by the monitoring and enforcement of formal rules, a mechanism widely accepted by both political economy and sociology. The new institutionalism in economic sociology specifies the manner in which the norms of close-knit groups interact with formal rules in the realization of interests. The variety of market mechanisms schematically represented in the downward arrow from the institutional environment to the organizations includes those embedded in labor markets, capital markets, raw material markets, and so on. Surprisingly perhaps, economists generally do not focus on markets as such, but just assume their existence in the neoclassical view of perfect competition in markets

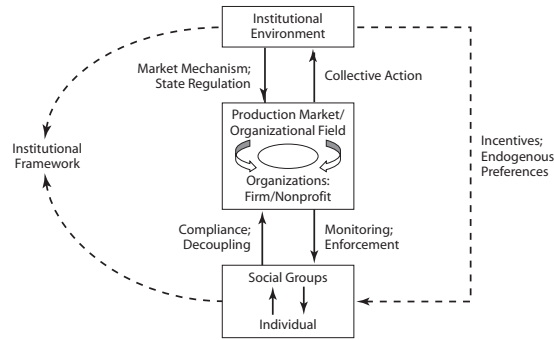


FIGURE 2. A model for the new institutionalism in economic sociology

underlying the supply-demand curve. The institutional framework encompasses formal rules of the institutional environment and informal rules embedded in ongoing social relations, which interact to shape economic behavior.

Organizations through collective action lobby for changes in the formal rules to make them in closer accord with their interests. Industry-based associations and professional lobbyists act as agents representing their interests. Groups of organizations are arrayed in an *organizational field*. The production market is a close-knit network of firms in an industrial sector arrayed in a status hierarchy of perceived quality.²⁵ In White's (2001) model of the production market, firms compete and maneuver for advantage and status with peer firms in a market niche. They are guided by the signals they read from the operations of their peers. In competitive markets, pressures on firms stemming from Darwinian selection processes necessitate an *interest-related* logic of strategic action, differing in emphasis from the *legitimacy-centered* orientation of nonprofit organizations—public schools, museums, day-care centers—which are dependent on state and federal government and philanthropy for resources. Legitimacy is also important for enterprises, as manifest in firms' investments in promoting brand-name recognition, reputation for reliability and quality service or product, and compliance with federal and state laws, but legitimacy-seeking is driven mainly by the firm's interest in its survival and profitability in competitive markets. For nonprofit organizations, especially, legitimacy is essential social capital, increasing the chances for optimizing access to scarce resources. In both for-profit firms and nonprofit organizations, legitimacy can be viewed as a condition of fitness that enables them to enhance their survival chances and secure advantages in economic and political mar-

kets. Processes of conformity with the rules of the game and cultural beliefs in organizational fields—*isomorphism*—motivate and guide organizations, endogenously giving rise to increasing homogeneity within an organizational field (DiMaggio and Powell 1983).²⁶

The social mechanisms facilitating, motivating, and governing the action of organizations in organizational fields or production markets are not dissimilar from those influencing strategic action of individuals in close-knit groups. Mechanisms of conformity in close-knit groups have coercive, normative, and mimetic aspects (Homans [1961] 1974). Actors are motivated by interests and preferences, often formed and sustained within such groups. Rationality is context-bound and embedded in interpersonal ties. Individual interests and preferences are enfolded in “welfare-maximizing” norms, which, depending on the incentives structured in the institutional environment, reinforce compliance to formal rules through self-monitoring or give rise to decoupling arising from opposition norms (as discussed below).

Informal Institutional Elements

The bottom box of our causal model overlaps with the earlier embeddedness concept, which argues that the *nature* and *structure* of social relationships have more to do with governing economic behavior than do institutional arrangements and organizational form. Specifically, Granovetter (1985, 490) refers to the “role of concrete personal relations and structures (or ‘networks’) of such relations in generating trust and discouraging malfeasance,” which he attributes to the human preference for transacting with individuals known to be trustworthy and for abstention from opportunism. But what explains motivation for trustworthiness and abstention from opportunism in ongoing social relationships? Why is trustworthiness found more commonly in ongoing social relationships than in transactions between strangers?

The answer is found in specifying the *mechanisms* intrinsic to social relationships that develop and maintain cooperative behavior within close-knit groups, enabling actors to engage in collective action to achieve group ends. These mechanisms are rewards and punishment in social exchange and their use in the *enforcement* of social norms—shared beliefs and statements about expected behavior.²⁷ Social exchange theorists have explicated the mechanisms involved, empirically in Blau’s (1955) classic study of social exchange and net-

works in a federal bureaucracy, *The Dynamics of Bureaucracy*, and theoretically in the network exchange literature pioneered by Homans ([1961] 1974), Emerson (1962), and Blau (1964). Numerous studies in natural settings and in laboratory experiments confirm the efficacy of social rewards and punishment in facilitating, motivating, and governing trustworthy behavior and abstention from opportunism with respect to the norms of the group.²⁸ Enforcement of norms within close-knit groups occurs spontaneously in the course of social interaction among members through the exchange of social rewards (i.e., esteem and status) for behavior that conforms to the group’s norms, and punishment (i.e., disapproval and ostracism) for violating them. As Homans ([1961] 1974, 76) perspicaciously points out: “The great bulk of controls over social behavior are not external but built into the relationship themselves.” Frequency of interaction, a characteristic feature of close-knit networks, lowers the cost of monitoring members of the group, assuming they are in close enough contact with one another that information about members’ conduct is common knowledge. Axelrod (1984) effectively simulated the operation of network mechanisms in his tit-for-tat model, showing that reward and punishment in repeated exchanges—when actors take into account the weight of the future, as in ongoing relationships—motivate cooperative behavior. In sum, trustworthiness and reliability as forms of cooperative behavior arise from rational action responding to social rewards and punishment in networks or close-knit groups.

In his detailed account of the interactions in the work group he studied made up of a supervisor, 16 agents, and one clerk, Blau (1955) provides a rare illustration of how self-interested action of individuals endogenously produces the informal social organization of a close-knit work group. In the work group Blau studied, agents consulted fellow agents about the appropriate legal rules that applied to their case, rather than bring their questions to the attention of the supervisor who evaluated their work. Blau observed that the informal interactions between agents involved a *social exchange* similar in logic to a decentralized market exchange:

A consultation can be considered an exchange of values; both participants gain something, and both have to pay a price. The questioning agent is enabled to perform better than he could otherwise have done, without exposing his difficulties to the supervisor. By asking for advice, he implicitly pays his respect to the

superior proficiency of his colleague. This acknowledgement of inferiority is the cost of receiving assistance. The consultant gains prestige, in return for which he is willing to devote some time to the consultation and permit it to disrupt his own work. The following remark of an agent illustrates this: "I like giving advice. It's flattering, I suppose, if you feel that the others come to you for advice." (Quoted in Homans 1974, 343)

Blau found that the more competent the agent, the more contacts she had with other agents, and the higher the esteem in which she was held. A few agents who were perceived as competent but who discouraged others from consulting them were disliked and had fewer contacts. These findings highlight the importance of social rewards and sanctions (e.g., esteem and disapproval) in the normative regulation of informal social organization. Routine social exchanges, such as the one described by Blau, comprise the informal social organization that emerges and sustains the performance of formal organizations (Nee and Ingram 1998).

Norms are the informal rules that facilitate, motivate, and govern joint action of members of close-knit groups. They arise from the problem-solving activity of individuals as rule-of-thumb guidelines for expected behavior. Throughout history, norms have coordinated group action to improve the chances for success—the attainment of rewards—through cooperation. As statements of shared beliefs about expected behavior, norms evolved together with language, as in the norms uttered by early hunting parties to coordinate action during the course of the expedition. Norms probably evolved through trial and error, with success the arbiter of why a particular norm persists in equilibrium across generations and diffuses to different groups.²⁹ Members of close-knit groups cooperate in enforcing norms because not only their interests are linked to the group's success, but their identity as well (White 1992).

The Relationship between Informal and Formal Institutional Elements

In uncovering the social norms of Shasta County, a sparsely settled rural county of northern California, where local ranchers and suburbanites maintain ongoing multiplex relationships, Ellickson "was struck that they seemed consistently utilitarian"; from which he inferred that "members of a close-knit group develop and maintain norms

whose content serves to maximize the aggregate welfare that members obtain in their workaday affairs with one another" (1991, 167).³⁰ Norms coordinating individuals' activities, as in the convention of arriving in a timely fashion at an agreed-upon social engagement, are not difficult to explain since it is easy to show that self-interested individuals share a common interest in complying with this convention. But the prisoner's dilemma norm is more difficult to explain since self-interested individuals derive a greater payoff for opportunism in a prisoner's dilemma game. What makes this game so interesting is that this type of dilemma is such a common feature of social and economic life. It is the prisoner's dilemma aspects of human interaction that give rise to opportunism in contractual agreements and in ongoing social relationships. To a degree, all social exchange resembles the prisoner's dilemma game insofar as there is always a temptation not to reciprocate a good turn provided by a friend or acquaintance (Hardin 1988). The prisoner's dilemma norm involves higher costs of monitoring and enforcement than coordination norms because it is always in the self-interest of individuals to free ride or defect. Hence, prisoner's dilemma norms must be welfare-maximizing in terms of the Kaldor-Hicks criterion in order to create sufficient rewards to individuals to overcome the temptation to do so (Ellickson 1991, 171; Posner 1986, 11–15).³¹

The nature of the relationship between informal social groups and formal organizations can substantially affect the cost of monitoring and enforcement of formal rules in institutional and organizational environments. The norms of close-knit groups can contribute to the realization of the organization's goal if the interests embedded in welfare-maximizing norms are, broadly speaking, congruous with the incentives embedded in the formal rules. This condition is met when members of close-knit groups or networks perceive that their preferences and interests are aligned with the organization's capacity to survive and profit. It is strengthened when members of networks identify with the organization's goals. This gives rise to endogenous motivation in networks to enforce formal rules, which substantially lowers the cost for organizations to monitor and enforce through formal sanctioning mechanisms, providing the necessary and sufficient conditions for high-level group performance in line with formal organizational goals. However, close coupling between informal and formal rules does not necessarily give rise to efficiency and high organizational performance. Indeed, pop-

ulation ecologists argue that the environment selects adaptive organizational forms independent of the collective will and effort of individuals acting within the organization (Hannan and Freeman 1989). For example, many high-technology firms renowned for the high morale and commitment of management and employees to achieve corporate goals have fallen by the wayside.

In contrast, when the formal rules are at odds with the interests and identity of individuals in close-knit groups, the welfare-maximizing hypothesis predicts the rise of opposition norms that facilitate, motivate, and govern the action of individuals in those groups. Opposition norms enable networks to coordinate action to resist either passively, through slowdown or noncompliance, or actively, in manifest defiance of formal rules and the authority of organizational leaders. This leads to increase in the cost of monitoring and enforcing formal rules as the incidence of opportunism and malfeasance increases. There is also a higher level of uncertainty and information asymmetry as members of close-knit networks collectively withhold information that might lead to discovery of opportunism and malfeasance. When group performance facilitated, motivated, and governed by opposition norms reaches a tipping point, the necessary and sufficient conditions for demoralization and oppositional movements at the organizational and institutional levels are met. *The incentives and disincentives emanating from the institutional environment, in combination with interests, needs, and preferences of individuals, influence whether norms and networks give rise to a close coupling of informal and formal rules, or decoupling through opposition norms.*³²

In the new institutional economic sociology purposive action by corporate actors and individuals (usually in close-knit networks) cannot be understood apart from the institutional framework within which incentives—including legitimacy—are structured.

Despite differences in local and regional history and culture, the laws and regulations monitored and enforced by the federal government apply to all regions of the United States, with very few exceptions. Variations in locality and region may limit the effectiveness of monitoring and enforcement, but they do not give rise to different underlying rules. Not only is the constitutional framework invariant, but federal rules aim to extend the power of the central state uniformly. As North's (1981) theory emphasizes, the state is the sovereign actor specifying the framework of rules that

governs competition and cooperation in a society. The state has the power to enact and enforce laws and initiate institutional innovations to secure and uphold public goods and respond to changing relative prices (Stiglitz 1989).

Laws, like norms, are statements of expected behavior, ideas framed with moral and ethical authority backed by state power. Whether as ideology or as cultural beliefs, they define the parameters of legitimate behavior to which organizations and individuals adapt. In keeping with disciplinary traditions, economists emphasize the costs of opposing the coercive forces of the state, and organizational sociologists emphasize the value of legitimacy gained through compliance with the state's rules. But in actuality, whether the price of noncompliance is perceived as costs imposed by fines and penalties or as a loss of legitimacy is moot since both are costly to the firm.

The institutional mechanisms of monitoring and enforcement operate directly on firms and nonprofit organizations through the costs of penalties and withholding of federal grants and contracts, but also have indirect effects. The increase in costs of discrimination—loss of legitimacy and financial penalty—following institutional changes during the civil rights era decisively opened American mainstream organizations to formerly excluded ethnic and racial groups (Alba and Nee 2003). The civil rights movement and the legislative changes enacted by Congress created a normative environment in which legitimacy was conditioned on fair governance through formal protections of the principle of equality of rights (Edelman 1990, 1992). Equal employment opportunity law (EEO) defined broad parameters and guidelines of legitimate organizational practices with respect to minorities and women. Because the civil rights laws have weak enforcement features and are ambiguously stated, organizations construct the meaning of compliance “in a manner that is minimally disruptive of the status quo” (Edelman 1992, 1535). This enables organizations to gain legitimacy and hence resources through the appearance of abiding by civil rights legislation. However, “once in place, EEO/AA [affirmative action] structures may produce or bolster internal constituencies that help to institutionalize EEO/AA goals” (1569). The civil rights laws may have their largest impact indirectly through professionals who generate “ideologies of rationality” or cultural beliefs about how organizations should respond to the law. Not only do high-profile landmark court cases (e.g., *Texaco*, *Coca-Cola*)³³ impose direct costs through penalties and

loss of legitimacy to specific firms, but a more far-reaching effect of these court decisions, along with legal advice about what organizations can do to insulate themselves from costly litigation, is to generate cultural beliefs about the rationality of self-monitored compliance with antidiscriminatory laws. This is manifested in the diffusion of EEO-specified grievance procedures in organizations (Edelman, Uggen, and Erlanger 1999). Thus ideologies of rationality and cultural beliefs have combined with the incentives and disincentives of the institutional environment, mediated by state regulation and market mechanism. This is consistent with the causal model in figure 2, suggesting that mechanisms of isomorphism align with the structure of incentives stemming from formal rules of the institutional environment.³⁴

ILLUSTRATIVE STUDIES IN NEW INSTITUTIONAL ECONOMIC SOCIOLOGY

The causal model in the new institutional economic sociology integrates a micro-foundation based on an account of the rational pursuit of interests, influenced by social relations and norms, with the idea that each economy has an institutional framework. As figure 2 indicates, causal mechanisms operate in both directions, from macro to micro and micro to macro levels of analysis. The multilevel causal model moves beyond the earlier embeddedness perspective toward a social relations *and* institutions approach to explanation of the emergence, persistence, and transformation of economic institutions and behavior. As a conceptual framework, the new institutionalism in economic sociology offers an open architecture for generating theories at the middle range extending the sociological approach to understanding economic behavior. The central challenge in new institutional economic sociology is to specify and explicate the nature of the relationships between elements at different levels of the multilevel causal model to explain how informal social organizations interact with large institutional structures. Here are four illustrations of such use of a multilevel causal model.

Weberian Model of Economic Growth

Evans and Rauch (1999) specify a three-level causal model to examine the effect of Weberian state structures on economic growth in developing economies. They argue that the characteristic feature of the institutional framework of the develop-

ment state, as opposed to the predatory state, is the presence of relatively well developed bureaucratic forms of public administration. As Weber argued in his theory of bureaucracy, the introduction of merit-based recruitment offering predictable career ladders established the basis for long-term commitments to bureaucratic service. Whether in the Meiji bureaucracy in Japan or in late-developing industrial economies like China, the development of modern bureaucratic capacity at the service of reform politicians was critical to government’s ability to monitor and enforce rules oriented toward promoting economic development. At the level of individual action, close-knit groups of elite bureaucrats share norms and goals shaped by meritocratic rules for recruitment and promotion, which reduces the attractiveness of corruption. This Weberian model provides an alternative to Shleifer and Vishny’s (1994, 1023) “grabbing hand of the state” model that conflates bureaucrats and politicians, showing that politicians invariably “try to influence firms to pursue political objectives” inconsistent with the objective of economic growth. In the Weberian model, bureaucrats are distinct from politicians insofar as they are vested with long-term careers governed by meritocratic rules of recruitment and promotion. Norms, shared belief in meritocratic service, and national development goals not only reduce the temptation of corruption but over time give rise to competence and credibility of commitment to civil service dedicated to the public good. The result is increased organizational capacity of the state, which in turn enables and motivates reform-minded rulers to increase revenues through economic growth rather than predation.

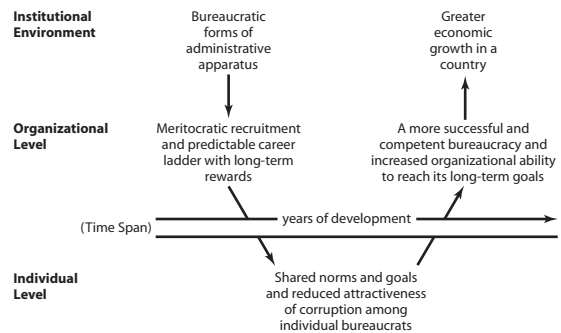


FIGURE 3. Evans and Rauch’s model on the effects of Weberian state structure on economic growth

A Dynamic Game-Theoretic Model of Deinstitutionalization

A multilevel causal model provides analytic leverage in understanding the emergence of market economies in postsocialist China, Eastern Europe, and the former Soviet Union. When Western economists traveled to Eastern Europe and the former Soviet Union to advise reformers at the onset of market reforms, their advice consistently emphasized big-bang approaches to instituting a market economy by designing sweeping changes in the formal rules governing property rights and markets. They assumed that formal rules—that is, constitution, civil law, and other regulations—instituted by administrative fiat would establish a modern capitalist economy (Sachs 1995). Such efforts at capitalism by design overlooked the realities of power and interests vested in the ruins of Communism.³⁵ By contrast, the incremental reform approach taken by reformers in China allowed economic actors to base their choices of institutions on trial and error that balanced speed with a credible record of success. This more evolutionary approach to market transition soon gave rise to the most dynamic economy in the world. In China, institutional change was driven not so much by top-down changes in the formal rules, but by bottom-up realignment of interests and power as new organizational forms, private property rights, and market institutions evolved in an economy shifting away from central state control over economic activity to market-driven firm performance.³⁶ Changes in formal rules governing the emerging market economy tended to follow *ex post* changes in the informal business practices, and were therefore more in keeping with the real interests of political and economic actors.³⁷ As in the former Soviet Union, however, efforts to reform state-owned enterprises through formal rule changes in China also proved largely ineffectual because, in part, *ex ante* changes in formal rules often ran counter to the vested interests and conflicting sources of legitimacy of the Communist Party organization entrenched in state-owned firms.

Nee and Lian's dynamic game theory model (1994) of declining ideological and political commitment helps to explain deinstitutionalization of the Communist Party in departures from central planning in transition economies. The technological and military gap that grew during the Cold War between the advanced market economies and state socialist countries precipitated reform efforts by Communist elites to narrow the gap through innovations

that sought to incorporate in the institutional framework of central planning increased reliance on the market mechanism. But at the individual level of party bureaucrats and officials, the growth of economic and political markets increased the payoff for opportunism and malfeasance, which in turn sparked within close-knit groups of party members a group-based social dynamic leading to declining ideological and political commitment to the Communist Party. This is demonstrated in a tipping point model wherein opportunism and malfeasance among party members, initially small, eventually reaches a critical mass. The reform leaders in the party attempt to address the problem through campaigns aimed at punishing malfeasance. Over time, however, declining commitment reaches a critical tipping point, precipitating demoralization and collapse of the Communist Party as an effective ruling organization. This in turn paves the way for deinstitutionalization of the party and far-reaching change in political institutions, including political revolution, in reforming state socialism. This game-theoretic model provides an explanation for declining organizational performance, highlighting the embedded nature of ideological commitment among party members and specifying the social dynamics that produce the tidal shift from commitment to the party's rules and goals to widespread opportunism and defection. The model links change in the incentive structure of the institutional environment—from redistribution to market—to the emergence in close-knit party networks of belief in opportunism as the expected behavior, presently, in a ruling party founded on an ideology opposed to such behavior. This sociological explanation for the rapid and relatively nonviolent collapse of Communist politics in Eastern Europe and the

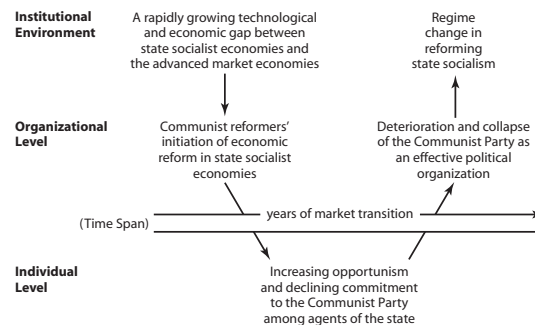


FIGURE 4. Nee and Lian's dynamic model of declining political commitment in state socialism

former Soviet Union is an alternative to standard economic and political interpretations (Aslund 1995; Beissinger 2002). In China and Vietnam, where Communist parties still retain power, the model predicts a cumulative decline of ideological and organizational commitment to the party.

A Signaling Model of the Market Mechanism

White’s (2001) theory of production markets portrays them as social structures constructed by producers in response to uncertainty arising upstream and downstream in particular market niches. When a new market niche emerges, new and established firms gear up production as they enter the market. Inevitably they must make investment and production decisions in a state of uncertainty with respect to upstream suppliers and downstream buyers. Applying Spence’s (1974) signaling theory and Burt’s (1992) model of rational action in networks, White argues that firms watch for cues and clues emitted by rival firms, as each firm adapts products for the market niche.

Thus the social construction of a market comprised of producers in a niche stems from the attempts by firms to interpret and use information from signals emitted by peers, as they maneuver and compete for position in the production market. Firms watch each other, and use signals from other firms to guide their choices and action. They search for their identity through the signals from competitor firms about the quality of their products or services. A firm’s reputation for quality is crucial to its survival. Through mutual signaling of perceived quality, firms order themselves in a pecking order—their market profile—in the niche. In the production market firms may form strategic alliances to strengthen ties or decouple from specific ties with member firms to disengage from dependencies. The outcome over time is an institutional framework of stable industrial sectors comprised of networks of firms. White’s model specifies and explicates a market mechanism arising endogenously from producers signaling each other in the production market. The identity of member firms in that market is framed by its roles and norms. White proffers a sociological view of markets as social structures in which producers act as the interface between upstream suppliers and downstream buyers—an alternative model of markets as a social institution, differing from the neo-classical economic assumption of perfect competition in markets.

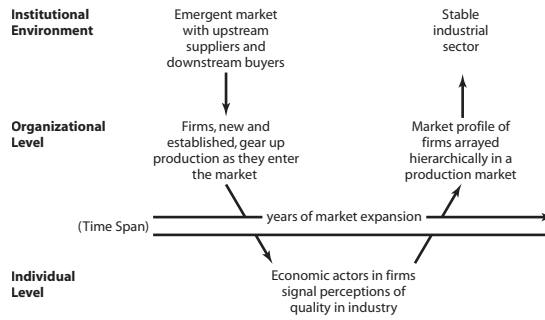


FIGURE 5. White’s model of production markets

A Study of Close Coupling between Informal Norms and Formal Organizational Goals

In a classic ethnography of shop-floor work norms and the emergence of institutionalized rules of advanced capitalism, Burawoy (1979) integrates insights from the Marxist theory of the firm with the context-bound utilitarian view of rational action of managers and employees in a large industrial firm. His organizational analysis shows that the emergence of internal labor markets and the shift of management styles to the image of an internal state grew out of the firm’s strategy of adaptation to competition arising from global markets. Introducing these characteristic institutional features of advanced capitalist firms induced a rise of individualism among employees competing in internal labor markets for advancement and promotion. Self-organized activity among employees also increased. Burawoy maintains that the informal games and norms of close-knit shop-floor work groups led to norm-based consent between employees and managers supporting the goals of management. The informal employee consent in

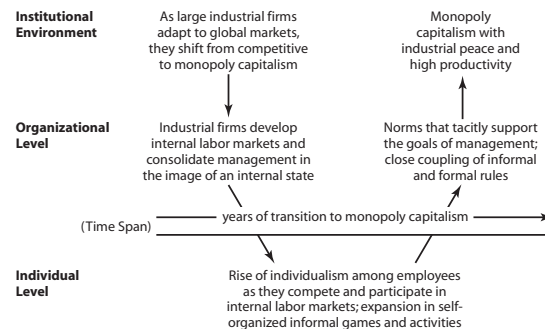


FIGURE 6. Burawoy’s model of shop-floor work norms and monopoly capitalism

turn gave rise to the institutional environment of advanced capitalism characterized by industrial peace and high productivity.

SUMMARY COMPARISON

Overall, the new institutionalisms in economics and sociology are unified around the view that neoclassical economics is limited by its unrealistic behavioral assumption of individual utility maximization, its conception of *homo economicus*, and its unrealistic assumption of zero transaction costs, as if institutions, social relations, and cultural beliefs were superfluous to understanding economic

and organizational life. Notwithstanding this shared viewpoint, these institutionalist approaches should be viewed as distinct but related research programs with overlapping assumptions and shared concepts. Table 1 offers a summary comparison between them.

Durkheim’s methodological holism has had a powerful influence on institutional theory in organizational analysis, as has its origins in studies of nonprofit organizations. This is evident in its behavioral assumption emphasizing nonrational action molded by codified and legitimated beliefs, scripts, myths, rituals, and rationalized stories. In the foundation essay by Meyer and Rowan (1977), there is little mention of the pressures imposed on

TABLE 1. The New Institutionalisms in Sociology and Economics

	<i>New Institutionalism in Organizational Analysis</i>	<i>New Institutional Economic Sociology</i>	<i>New Institutional Economics</i>
Behavioral assumption	Emphasis on nonrational action oriented to cultural beliefs constitutive of the institutional environment	Rationality is context bound; actors motivated by interests, usually shaped by shared beliefs, norms, and network ties	“Intendedly rational, but limitedly so”; information asymmetry and uncertainty give rise to hazards accruing to opportunism
Actors	Professionals serve as the agents of institutionalization	Organizations are actors; individuals articulate interests within organizations and networks	Organizations and individuals are actors
Definition of institution	Rationalized myths and routines, conformity to which confirms legitimacy	Interrelated system of institutional elements—informal and formal—facilitating, motivating, and governing social and economic action	Humanly constructed constraints—the formal and informal rules that structure incentives; discrete governance structures as contracting units
Macro-level mechanisms	State regulation, coercive and normative isomorphism	State regulation, market mechanism, collective action	States seek revenue maximization; transaction cost economizing by firms
Micro-level mechanisms	Action oriented to mimicking, conformity, and decoupling	Interest-driven action within organizations and networks	Self-interested principal/agents; calculating hazards of opportunism
Sources	Durkheim, Weber, Berger and Luckmann	Weber, Marx, Polanyi, Homans	Smith, Knight, Commons, Coase

organizations by the motive to survive and profit in competitive markets. Rather, the organization's practical action and strategy are principally motivated by concern for securing and maintaining legitimacy. Organizational neoinstitutionalists tend to reject utilitarian conceptions of purposive action to embrace what they perceive as a cultural turn in social theory. The behavioral assumption emphasizing the nonrational cultural basis of social action integrates Durkheim's conception of institutions as social molds with insights from ethnomethodology (Garfinkel 1967; Cicourel 1974; Giddens 1979) and social theorists who are leading the cultural turn in sociology (Goffman 1967; Berger and Luckmann 1967; Douglas 1986; Bourdieu [1972] 1977; Swidler 1986). Notwithstanding, DiMaggio and Powell (1983) incorporate bounded rationality in their conception of organizational actors, and hence their seminal essay provides a useful bridge linking new institutional economic sociology with organizational theory.

At the other end of the continuum, new institutional economics explicitly assumes bounded rationality: individuals intend to be utility maximizing, but are limitedly so, due to uncertainty, information asymmetry, and imperfect cognitive ability. Its basic underlying view of human agency—"self-interest seeking with guile"—is, despite Posner's (1993) remarks to the contrary, distinct from and not readily incorporated into the neoclassical view of *homo economicus*, who is wholly rational, having complete information and perfect computational skills.

New institutional economic sociology stands at the center, between the economists' assumption of bounded rationality and the cultural turn in organizational sociology. Despite differences in emphasis, its conception of organizational action is complementary with core arguments advanced by DiMaggio and Powell (1983) on interest-driven aspects of *isomorphic* adaptation by organizations to their institutional environment. Despite similarities in emphasis, it differs from economics in building on "a broader formulation of rational choice" (Granovetter 1985, 506), in which rationality is viewed as context-bound—often decisively influenced by shared beliefs and norms monitored and enforced by mechanisms arising from social interactions in close-knit networks and groups. Thus rational action in economic life is facilitated, motivated, and governed by shared beliefs, social relations, norms, and institutions—a view that is inconsistent with neoclassical economics' assumption of atomistic, utility-maximizing *homo economicus*.

Although transaction cost economics assumes individual opportunistic actors, its unit of analysis—economic transactions—is operationalized at the organizational and institutional levels. Individual-level action is seldom a focus of analytic attention. Economists unproblematically extend their conception of individual-level action to corporate actors in a conceptual framework that views institutions as the rules of the game and organizations as the players. North's (1990) theory of institutional change turns on the assumption that organizations respond efficiently, even when gradually, as rational actors to changing relative prices, mounting collective action to pressure for changes in the formal rules of the game that enable them to adapt to the new price structure. North's theory of institutional change, however, overlooks the powerful inertial forces within organizations stemming from past investments in stable formal rules, informal social organization, and opposition norms (Stinchcombe 1965).

Organizational new institutionalists emphasize professionals as actors driven by concern for legitimacy in their relationship to particular organizational fields and to the broader institutional environment. Rules, scripts, myths, stories, and menus provide the rationalized guidelines for strategic and practical action. But as in transaction cost economics, individual-level action is implicit in neoinstitutional organizational theory, and is uncommonly a focus of empirical attention, except by reference to the role of professionals as occupational groups. Neoinstitutional theory shifts attention away from informal social structures and processes inside the organization, emphasized by old institutionalists like Barnard, Selznick, and Blau, to focus on actors at the levels of the organizational field and the institutional environment. The actors that matter are external to the organization, in professional associations and legitimacy-monitoring agencies.

In accord with the embeddedness perspective's emphasis on proximate causes embedded in networks, new institutional economic sociologists often focus on individual-level actors, whether entrepreneurs or employees. Agency and the pursuit of interests are facilitated, motivated, and governed by social relations, shared beliefs, norms, and institutions. Established organizations often appear inert, from this perspective, because they face powerful inertial forces; instead new organizational forms generate the pressures for institutional change (Ingram 1998). In this respect economic sociologists agree with organizational

sociologists that rational action by organizational actors is problematic, not only because it is difficult to measure, but because unintended consequences of individual-level rational action and path dependence at the institutional level greatly complicate matters at the organizational level.

As DiMaggio and Powell (1991) point out, there are many more definitions of institutions than there are new institutionalisms in the social sciences, because scholars have been casual in defining them. Despite the profusion of definitions, there is an underlying consensus about this matter in economic and sociological new institutionalisms. Organizational new institutionalists conceive of institutions as systems of rationalized myths and routines, conformity to which confers legitimacy upon organizations. While their conceptual language may differ, the underlying theme of institutions as rule-governed social constructions is consistent with new institutionalist economics and economic sociology, which share similar definitions of institutions as dominant systems of interrelated formal and informal rules that facilitate, motivate, and govern social and economic behavior. Economic sociology differs from economics, however, in the view that institutions are not simply the formal and informal constraints that specify incentives and disincentives, as in North (1981), but fundamentally encompass socially constructed arenas in which actors identify and pursue interests. Although economists acknowledge the importance of informal social organization, their analysis emphasizes the role of the state in enforcing formal rules. Economic sociologists emphasize the norms produced and maintained in close-knit groups that comprise the informal social organization in firms. As they see it, ongoing interpersonal ties and networks are crucial to understanding the nature of the relationship between informal social organization and formal rules.

New institutionalists in economics and sociology concur that regulatory rules monitored and enforced by the state and statelike organizations frame the underlying social structure of the institutional environment. Formal rules are important in economic analysis insofar as they define the incentive structure for organizations and firms, as in the rules governing property rights. Economists emphasize the monitoring and enforcement of formal rules by the state as the crucial macro-level mechanism. They simply *assume* markets and instead focus explanatory attention on changes in the relationship between the economic and political actors (e.g., North and Weingast 1989). Organizational

analysts, in turn, highlight organizations' quest for legitimacy as the motor that drives conformity to institutionalized rules and practices through coercive, normative, and mimetic mechanisms. The mechanisms of isomorphism operate within the organizational field, promoting increasing homogeneity among organizations. New institutional economic sociology once again occupies the center, drawing on insights on the role of the state in implementing institutional innovations and on legitimacy as a motivating interest of organizations. Economic sociologists borrow insights from organizational research on the importance of isomorphism as a macro-level causal mechanism, but their focus on firms and entrepreneurs as opposed to nonprofit organizations (i.e., public schools, local government, museums, hospitals) imparts greater attention to specifying and explicating how market mechanisms and state regulation shape the way economic actors compete for survival and profits.³⁸

With respect to specification of micro-level mechanisms, organizational sociologists emphasize organizational action oriented to mimicking, conformity, and decoupling. New institutional economists build on a modified version of the maximizing assumption of neoclassical economics. The integration of information asymmetry and uncertainty confers a greater level of realism on bounded rationality. New institutional economic sociology conceives of micro-level mechanisms as stemming from the interest-driven action of individuals influenced by ongoing social relations, shared beliefs, norms, and institutions.

The sources of the new institutionalisms in economics and sociology are diverse, reflecting differences in emphasis, behavioral assumptions, and core organizing concepts. Economic new institutionalists extend the Smithian classical tradition of economic reasoning through the writings of Coase, Knight, Commons, North, and Williamson, but they also borrow key insights from Weber, Marx, and Polanyi in their understanding of institutions and institutional change. In organizational analysis, institutional theorists extend Durkheim's view of institutions as "social facts" that mold social behavior and Weber's view of the importance of cultural beliefs in motivating social and economic action. New institutionalists in economic sociology extend insights from Weber's methodological individualism and pioneering work in comparative institutional analysis focusing on systems of shared beliefs, law, bureaucracy, markets, and the state; from Marx's theory of capitalist economic institutions, which anticipated the concept

of transaction costs in analyzing the nature of the relationship between capitalists and workers; and from Polanyi's concept of social embeddedness and analysis of the institutional mechanisms giving rise to and maintaining modern market economies. They also draw on insights from economics, especially following the recent sociological turn in economics that has increased the areas of overlapping concerns.

CONCLUSION

Sociological analysis of the nature of the relationships between networks, norms, and large institutional structures in economic life is at an early stage. As economic sociology refines and deepens its explanation of the nature of these relationships, it will necessarily draw on a variety of methodological and theoretical tools. Insights from cognitive science, behavioral economics, game theory, and computer simulation of the emergence, diffusion, and transformation of norms and beliefs can contribute to deepening understanding of the micro-macro links (Marsh 2002). These methods can also contribute to understanding the stability of customs, conventions, norms, and beliefs.

Central to the research agenda of a new institutional approach is to bring comparative institutional analysis back into economic sociology. Much of this work to date has involved qualitative historical analysis of one or two case studies. While such work has led to advances in understanding the relationship between institutions and economic behavior, the use of quantitative methods moving beyond case studies to engage systematic cross-national firm-level studies can specify and explicate how variable features of the institutional environment affect firms' behavior in the global economy. Comparative institutional analysis of firm-centric data on sources of perceived costs in the institutional environment offers a promising approach to the measurement of transaction costs. Though transaction cost is the core theoretical concept of new institutional economics, economists have yet to measure this concept in a manner useful for empirical analysis.³⁹ As it refers to the costs stemming from uncertainty and information asymmetry embedded in social relations (e.g., the principal-agent relationship), it is a concept of significant interest to sociologists as well. The development of standardized indexes of transaction costs arising from a variety of institutional sources (i.e., property rights, uncertainty, transparency of rules, resource

dependence, bureaucracy, government regulation, state predation) using firm-centric data opens the way for a more differentiated account of how the institutional environment influences economic behavior.⁴⁰ Economic sociologists, for example, can fruitfully extend the ecological reasoning of organizational sociology to examine discrete patterns in institutional environments that support distinct organizational forms. For example, what features of the institutional environment—"institutional ecology"—support modern public-owned corporations as opposed to the traditional family-owned firms in the global economy?

The idea of path dependence, imported into economics from the physical sciences, has deepened social science understanding of institutional change (Nelson and Winter 1982; David 1986; Arthur 1988). Path dependence refers to the lock-in effects stemming from initial conditions on subsequent development and change in the institutional environment. Economic historians have used the idea productively to explain the stability of institutions and the persistence of institutional arrangements that may later be inefficient for economic actors, given changes in relative prices (North 1990; Greif [1994] 1998). Hamilton and Feenstra (1998, 173) show that the idea of path dependence is adumbrated in Weber's theory of economic rationalization, which maintains that "entrepreneurial strategy is necessarily embedded in an array of existing economic interactions and organizations." Further research is needed to deepen understanding of path-dependent institutional change and especially of the relationship between the persistence of informal institutional elements and change in formal rules (Nee and Cao 1999). It is the stability of informal institutional elements—customs, networks, norms, cultural beliefs—that disproportionately accounts for path dependence in institutional arrangements.

Just as economists find it useful to incorporate the idea of embeddedness in their models of the economy, so economic sociology can benefit from integrating economic ideas that are complementary to the modern sociological approach. Economic exchange is a specialized form of social exchange (Homans 1974, 68); hence the mechanisms facilitating, motivating, and governing social processes extend to economic behavior. Cross-disciplinary trade with economics has been useful to sociology in the past, as evident in the extensive borrowing from economics by the founders of modern sociology, and in the influence of imported ideas such as human capital, social capital, and path depen-

dence. New institutional economic sociology is well positioned to benefit from, and contribute to, intellectual trade with economists, especially in light of their turn to sociology for understanding about the social dimension of economic life.

NOTES

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1. Recent reviews provide overviews of the new institutionalisms in economics (Eggertsson 1990; Williamson 1994; Furubotn and Richter 1997), in organizational analysis (DiMaggio and Powell 1991; Ingram and Clay 2000), in rational choice political science (Ordeshook 1990; Weingast 2003), and in historical institutionalism (Thelen and Steinmo 1992; Hall and Taylor 1996; Pierson and Skocpol 2003). Scott (2001) offers a useful conceptual inventory of advances in organizational new institutionalism.

2. See Granovetter 1992 for an application of a social constructionist approach to the study of economic institutions. Granovetter offers an interpretive account of institutions amenable to historical studies of institutions and institutional change.

3. Coase believes nonetheless that state intervention can be effective, but not always or automatically.

4. Furubotn and Richter (1997) show, however, that bounded rationality cannot be incorporated in neoclassical economics as such.

5. A thoughtful review of the old economic institutionalism by Hodgson (1998) argues that habitual behavior was the starting point of its institutional analysis. The old institutional economist examined patterns and regularities of human behavior—habits—as the basis for the approach to macroeconomic systems. It was not that the old institutionalists failed to generate important findings, but they were displaced by the rise of mathematical economics. See also Yonay 1998 for an examination of the conflict between the old institutionalists and neoclassical economists.

6. Stinchcombe (1997) in fact views Coase's "The Nature of the Firm" (1937) as an important contribution to the old economic institutionalism's core research agenda, identifying the institutional elements making possible the competitive structure of capitalism. According to Stinchcombe, Coase's analysis of the nature of firm boundaries complements Commons's work on the noncontractual basis of the contracts that constitute the firm. Williamson (1981, 549–50) explicitly acknowledges his own intellectual debt to Commons (1934), who "recognized that there were a variety of governance structures with which to mediate the exchange of goods or services between technologically separable entities. Assessing the capacities of different structures to harmonize relations between parties and recognizing that new structures arose in the service of these harmonizing purposes were central to the study of institutional economics as he conceived it."

7. Significant early writings of the new institutional economists influenced by Coase's classic essays include Alchian 1950; Alchian and Demsetz 1972, 1973; Cheung 1970,

1974; Davis and North 1971; Demsetz 1967, 1968, 1983; North and Thomas 1973; Barzel 1982, 1989; Williamson 1975, 1985; and Ostrom 1990. In a recent review, Williamson (2000) includes six Nobel laureates among key figures in the new institutional economics: Kenneth Arrow, Friedrich Hayek, Gunnar Myrdal, Herbert Simon, Ronald Coase, and Douglass North. The founding of the International Society for New Institutional Economics by Coase, North, and Williamson in 1996 has provided an annual forum for new work, much of it empirical, and has greatly expanded the scope of research addressed by new institutional economists.

8. Specifically, Williamson makes use of the contract law literature and the organization literatures of Barnard ([1938] 1964) and especially the Carnegie school (Simon 1957; March and Simon 1958, Cyert and March 1963).

9. "Problems of contracting are greatly complicated by economic agents who make 'false or empty, that is, self-disbelieved threats or promises' (Goffman 1959, p. 105), cut corners for undisclosed personal advantage, cover up tracks, and the like" (Williamson 1981, 554).

10. Transaction cost economics concurs with population ecology's core assumption that competition in a market economy is the driving mechanism of adaptive fitness of organizational forms (Hannan and Freeman 1989) and offers a firm-level answer to their question, "Why are there so many kinds of organizations?" Its predictions have been confirmed in empirical tests (Joskow 1988; Shelanski and Klein 1995; Masten 1993).

11. Because the essence of property rights is the right to exclude, North (1981) reasoned that the state, which has a comparative advantage in violence, plays a key role in specifying and enforcing property rights. North's theory of the state is neoclassical insofar as it assumes that rulers seek to maximize revenue through an exchange of protection and justice for revenue from constituents. Although the ruler has an interest in devising property rights to maximize state revenues, the existence of rivals capable of providing the same services constrains the state. Because the free-rider problem limits the ability of constituents to carry out society-wide institutional change, the state, which as a monopolist does not face a free-rider problem, is the source of institutional innovations.

12. Campbell and Lindberg (1990) analyze how a weak state structure like the United States derives enormous power through its control of formal rules governing property rights.

13. North and Weingast (1989) argue that in the English case, the key events and conditions stemmed from the eruption of the tension between ruler and constituent that gave rise to institutions limiting the capacity of the state to appropriate resources from producers, and hence the needed incentives to fuel economic growth through innovation and private enterprise.

14. Libecap (1994) integrates public choice theory with new institutional economics to develop a property rights approach to institutional change that takes into account political and economic interests.

15. For example, the demise of China's planned economy led to a change in the structure of industrial production and an increase in labor demand (changing relative prices). The state's response was to liberalize rules on internal migration and household registration in rural areas.

16. A second prong of Granovetter's critique was to point to the limitations of the functionalist claim that institutions and generalized morality are solutions to problems in economic life, a claim that "fails the elementary tests of a sound

functional explanation laid down by Robert Merton in 1947” (1985, 488–89). In orienting economic sociology to study the effect of interpersonal ties and network structures on economic performance, Granovetter is well aware of a slippery slope leading to functionalism within a social relations approach. It is not uncommon in the embeddedness literature, for example, to uncover arguments positing the advantages of networks as (1) solving efficiently the problem of trust, (2) providing ready access to fine-grained, timely, and reliable information, and (3) allowing collective problem solving by entrepreneurs. This leads to his methodological emphasis on the need for economic sociology to study the history of concrete interpersonal relations.

Because “enormous trust and enormous malfeasance may follow from personal relations” (492), Granovetter argues it is impossible to determine *ex ante* whether reliance on interpersonal ties will cement trust or give rise to opportunities for malfeasance *ex post*. It is necessary therefore to examine through historical case studies how specific interpersonal ties and network structures evolve (McGuire, Granovetter, and Schwartz 1993). To succeed in its competition with new institutional economics, the embeddedness approach needs to demonstrate that interpersonal ties have more to do with shaping economic behavior and performance in markets and hierarchies than do organizational forms. Along these lines, Granovetter has proposed a rival hypothesis to transaction cost economics, which asserts that variation in the structure and nature of interpersonal ties explains vertical integration of firms: “we should expect pressures towards vertical integration in a market where transacting firms lack a network of personal relations that connects them or where such a network eventuates in conflict, disorder, opportunism, or malfeasance. On the other hand, where a stable network of relations mediates complex transactions and generates standards of behavior between firms, such pressures should be absent” (1985, 503).

17. As Richard Miller (1987) points out, proximate causes are often shallow when contrasted with the deep determinative causes identified with large structures and processes.

18. Here I use virtually verbatim a comment provided by Paul DiMaggio.

19. Williamson’s multilevel model in which a higher level constrains the lower level differs from the multilevel model I propose in figure 2 for new institutional economic sociology, where each level is in mutual dependence with the other. As Paul DiMaggio has pointed out to me in a personal communication, the latter approach offers a “co-evolutionary model, with phenomena at different levels mutually constituting contexts within which each evolves.”

20. See Rona-Tas 1994; Eyal, Szélenyi, and Townsley 1998.

21. New institutional organizational analysis represents more diversity in viewpoints on agency than is often acknowledged. For example, DiMaggio, Powell, and Scott differ with Meyer and Rowan in their interest in taking into account agency—actors who share beliefs and norms; hence the former are closer to the position articulated by Greif than to the structuralism of Meyer and Rowan.

22. Its use is restricted to analyzing social interactions in equilibrium, a situation in which each player’s behavior is optimal given the perceived and expected behavior of others in the game.

23. In his influential study of the Maghrebi and Genoese traders in late medieval economic history, Greif ([1994] 1998) demonstrated the use of game theory to explicate the manner in which social variables such as beliefs, norms, and networks motivate economic action. Both groups of traders relied on

community-based social institutions to solve principal-agent issues: the problem of negotiating and securing contracts *ex ante* and ensuring their compliance *ex post* given asymmetric information, partial contracting, and uncertainty. Genoese traders guided by individualist cultural beliefs constructed formal institutional structures that enabled them to employ nonkin agents. The Maghrebi traders were collectivist in their cultural beliefs and relied on ethnically bounded institutional arrangements to organize long-distance trade. Greif points out that although the historical record does not allow a test of relative efficiency between the two trading systems, the Maghrebis eventually disappeared from the Mediterranean world, whereas Genoese traders flourished in late medieval Europe. Greif ([1994] 1998, 96–97) observes that “it is intriguing that the Maghribis’ societal organization resembles that of contemporary developing countries, whereas the Genoese societal organization resembles the developed West, suggesting that the individualistic system may have been more efficient in the long run. . . . To the extent that the division of labor is a necessary condition for long-run sustained economic growth, formal enforcement institutions that support anonymous exchange facilitate economic development.”

24. Development of an interest-related approach to comparative institutional analysis is being pursued by Nee and Swedberg at the Center for the Study of Economy and Society at Cornell University (see www.economyandsociety.org). The views expressed by Scott and Meyer (1983) are complementary to an interest-related approach to institutional analysis.

25. Clearly, organizational field and production markets are overlapping and redundant concepts with respect to for-profit firms. Mechanisms of conformity to group norms and beliefs about expected behavior operate in all close-knit groups, whether of firms or individuals. Given the emphasis on for-profit firms in economic sociology, production market, as opposed to organizational field, is the more useful concept.

26. An early focus on nonprofit organizations may account for why organizational sociologists specify legitimacy-seeking as the driving mechanism of organizational behavior. DiMaggio and Powell (1983) specify three mechanisms—coercive, normative, and mimetic—promoting isomorphism in organizational fields. They integrate their mechanisms of isomorphism with resource dependence theory to specify hypotheses predicting the extent of isomorphism at the organization and field levels. Coercive isomorphism integrates resource dependence theory into organizational analysis; normative isomorphism specifies how professional associations influence organizational behavior under conditions of uncertainty; and mimetic isomorphism, as DiMaggio writes in a personal communication, “is about how . . . intendedly rational actors, facing uncertainty under high stakes, satiate by identifying successful peers and making reasonable but incorrect attributions about the causes of their success.”

27. Social ties and norms do not themselves constitute mechanisms insofar as they are concepts referring to elements of social structure—the relationship connecting two or more actors and the informal rules governing the relationship.

28. See Roethlisberg and Dickson 1939; Whyte 1943; Festinger, Schachter, and Back 1950; Schachter et al. 1951; Jennings 1950; Seashore 1954; Bott 1957; Riley and Cohn 1958; Walker and Heyns 1962; Cook et al. 1983; Ellickson 1991; Petersen 1992; Kollock 1994; Lawler and Yoon 1996.

29. Shibutani (1978) provides detailed observations about the emergence and maintenance of norms of a close-knit group of Japanese American soldiers in a military base,

documenting norm emergence as a product of collective problem-solving as members of the group socially construct a definition of the situation and course of action that optimizes their welfare.

30. Ellickson's analysis of conflict arising from damage to property caused by trespassing cattle showed that the residents of Shasta County commonly resorted to informal norms of cooperation to settle disputes. Ellickson reports that ranchers and residents have only a vague grasp of the formal litigation procedures involved in resolving disputes over trespassing. Moreover, litigation is viewed as a costly way to settle property disputes, both financially and with respect to long-standing relationships in a close-knit community. Ellickson's narrative of the incidents of disputes between ranchers and suburbanites shows that despite their cultural differences, a common identity as residents of Shasta County sustains a live-and-let-live philosophy that enables parties to practice mutual restraint. As long as accounts balanced along multiple dimensions of interpersonal relations, parties in disputes settled informally:

The landowners who were interviewed clearly regard their restraint in seeking monetary relief as a mark of virtue. When asked why they did not pursue meritorious legal claims arising from trespass or fence-finance disputes, various landowners replied: "I'm not that kind of guy"; "I don't believe in it"; "I don't like to create a stink"; "I try to get along." The landowners who attempted to provide a rationale for this forbearance all implied the same one, a long-term reciprocity of advantage. Ann Kershaw: "The only one that makes money [when you litigate] is the lawyer." Al Levitt: "I figure it will balance out in the long run." Pete Schultz: "I hope they'll do the same for me." Phil Ritchie: "My family believes in 'live and let live.'" (1991, 61)

31. Ellickson's specification of welfare-maximization is not Pareto-superior insofar as its criterion focuses on the question, do most people derive a net benefit from the norm? According to the prisoner's dilemma game, $T > R > P > S$, where T is the temptation to defect, R is the reward for mutual cooperation, P is punishment for mutual defection, and S is the sucker's payoff. The condition for the prisoner's dilemma norm to be in equilibrium is that the total payoff for cooperation, after deducting the cost of monitoring and enforcement (C), must be greater than the payoff for defection (T) and the sucker's payoff (S): $2R - C > T + S$ (Nee and Ingram 1998).

32. Nee and Ingram (1998) specify how informal norms emerge and interact with formal institutional elements, permitting predictions about organizational and economic performance that can be empirically tested.

33. For example, in 1997 the landmark federal discrimination case against Texaco imposed a costly settlement of \$175 million to minority employees, and the publicity arising from the case also damaged the firm's reputation. Texaco was compelled to carry out extensive organizational changes in personnel policy and practices in making credible commitment to eliminating racial discrimination to avoid further fines and restore its legitimacy. The federal discrimination case against Coca-Cola was resolved at a cost of \$192 million to the firm. Coca-Cola's management, moreover, agreed to ongoing external monitoring of its progress in eliminating bias in all aspects of the firm's operation. As with the public response to the landmark Texaco discrimination case, both damage to Coca-Cola's brand name and the financial and organizational penalties of the settlement had the effect of reinforcing other firms' belief in self-monitoring for compliance with EEO/AA guidelines.

34. In their study of the history of personnel practices in 279 firms in California, Virginia, and New Jersey—localities with different institutional contexts—Sutton and Dobbin (1996) confirm an endogenous motivation of personnel professionals and affirmative action officers to develop strategies for compliance with EEO guidelines. Federal activism through expanded legal and political pressures on firms increased the rate of adoption of legalization within the firm of due-process governance. In general, the diffusion of legalized governance structures demonstrating compliance with EEO/AA guidelines shows time-trends corresponding to ups and downs of federal EEO/AA enforcement activities. Firms that contracted with the federal government were more likely to file annual EEO reports to demonstrate good faith in compliance with federal guidelines. Organizations closer to the public domain more readily complied with federal EEO/AA rules and guidelines. Significantly, findings by Sutton et al. "suggest that legalization is not aimed inward, toward specific employee demands or organizational requirements, but outward at the shifting concerns of regulators and courts" (1994, 996). In a follow-up study using a different data set of 154 for-profit firms, Sutton and Dobbin (1996) confirm the close coupling of state regulation of formal rules and the normative pressures on management from human resource professionals inside the firm to institute proactive governance strategies (i.e., formal lawlike rules governing grievance procedures and internal labor markets to protect equality of rights) in order to comply with federal EEO/AA guidelines.

35. For analyses of how institutional change by administrative design and formal rule change faltered in Eastern Europe and Russia, see Stark 1996; Gray and Hendley 1997; Hellman 1997; Varese 2001.

36. For analyses by economic sociologists of realignment of power and interests favoring economic actors in market transitions and institutional change in China, see Walder 1995; Nee 1996; Cao 2001; Guthrie 1999; Keister 2000.

37. See Shirk 1993; Naughton 1995; and Opper, Wong, and Hu 2002 for analyses of how economic and political actors benefited from institutional change.

38. Economic sociologists whose work examines the effect of markets include Saxenian (1994); Swedberg (1994); Abolafia (1996); Uzzi (1997); Guillén (2001); White (2001); Baron and Hannan (forthcoming); Freeman (forthcoming); and Davis and Marquis (forthcoming). Those examining the effect of both market and state regulation on economic actors include Nee (1992, 1996, 2000); Nee, Sanders, and Sernau (1994); Walder (1995); Fligstein (1996, 2001); and Guthrie (1999).

39. North and Wallis (1986) estimated the size of the transaction sector of the American economy; however, their aggregate data is not useful for empirical analysis.

40. Firm-centric data, rather than aggregate national-level data, is needed to measure transaction costs, which are the costs to firms of negotiating, securing, and completing economic transactions. The problem with national-level aggregate data is that it does not measure the effect of variation in institutional conditions on the firm and entrepreneur.

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