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THE CHOICE-WITHIN-CONSTRAINTS NEW INSTITUTIONALISM AND IMPLICATIONS FOR SOCIOLOGY

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■ **Abstract** The variant of new institutionalism that is our focus is a pan-disciplinary theory that asserts that actors pursue their interests by making choices within institutional constraints. We organize our review of the theory around its behavioral assumptions, the operation of institutional forms, and processes of institutional change. At each stage, we give particular attention to the potential contributions of sociology to the theory. The behavioral assumptions of the theory amount to bounded rationality and imply transaction costs, which, in the absence of institutions, may frustrate collective ends. The principle weakness of these behavioral assumptions is a failure to treat preferences as endogenous. We categorize the institutions that arise in response to transaction costs as to whether they are public or private in their source and centralized or decentralized in their making. In detailing the resulting categories of institutional forms, we identify key interdependencies across the public/private and centralized/decentralized dimensions. The new institutionalism is in particular need of better theory about private decentralized institutions, and theorists could turn to embeddedness theory and cognitive new-institutional theory as a source of help on this topic. The dominant view of institutional change is that it is evolutionary, driven by organizational competition, and framed by individual beliefs and shared understandings. Sociology can refine the change theory by adding better explanations of the behavior of organizations, and of the processes by which institutional alternatives come to be viewed as acceptable or unacceptable.

INTRODUCTION

Ronald Coase (1998, p. 73) likens mainstream economics to studying "the circulation of the blood without a body." The new institutionalism that is the focus of this essay is about the body. Its fundamental assertion is that actors pursue their

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interests by making choices within constraints. This assertion can be expanded to identify three characteristic elements of the theory. First, it holds that actors are boundedly rational in the sense that they pursue a broad set of self interests, but with limited knowledge and cognitive capacity. Second, institutions are defined as the rules, combined with their enforcement mechanisms, that constrain the choices of actors. These rules include the laws of states, the policies of organizations, and the norms of social groups. Third, institutions ideally constrain actors such that their best choices are consistent with the collective good, enabling, for example, mutually profitable exchange between actors. However, there is no assumption that ideal institutions will exist, and globally inefficient institutions sometimes persist because they favor particular actors who have the power to defend them. The theory is pan-disciplinary, and major contributions have come from economics (Coase 1937, Williamson 1975, North 1990, Greif 1994), political science (North & Weingast 1989, Ostrom 1990), law (Ellickson 1991), sociology (Nee & Ingram 1998), and anthropology (Ensminger 1992).

This "choice-within-constraints" framework is only one of many theories to be called new institutional (Fligstein 1997). We do not attempt in this essay to give full treatment to all new institutional theories (for broader new institutional reviews, see Scott 1995, Stinchcombe 1997, Nee 1998). Instead, we try to give a more complete treatment of the accomplishments and shortcomings of the variant of new institutionalism that is our focus. However, other theories come into play as sources of solutions to the theoretical problems with which the choice-within-constraints framework is currently struggling. Particularly likely sources for intellectual exchange with the choice-within-constraints framework are the more cognitive version of new institutionalism, from sociology's organizational theory, and the related theory of embeddedness from economic sociology. Indeed, it is one of our main assertions that sociologists are well poised to make contributions to the new institutional theory that we elucidate.

This essay has three main parts. In each, we treat a core component of the theory, describing and critiquing its current state. We begin by detailing its behavioral assumptions. These assumptions amount to bounded rationality, and they imply the foundation problem of the new institutionalism, that exchange is associated with uncertainty and risk. Uncertainty and risk in exchange create transaction costs, which frustrate efforts to attain collective ends (from simple gains from trade to the fruit of complex collective action). A key weakness of these behavioral assumptions is their inattention to the origin of preferences. This is the missing link in all theories based on behavioral assumptions of rationality. On this topic the new institutionalism can use the findings of embeddedness theory (Granovetter 1985, Uzzi 1996) and cognitive institutionalism (Meyer & Rowan 1977, Powell & DiMaggio 1991).

We then denote the major classes of institutions and explain the mechanisms of their operation. Institutions can facilitate the attainment of collective ends that transaction costs might otherwise prevent. They do this by aligning individual incentives to be consistent with collective ends. We propose a classification system for institutions based on two dimensions—public or private and centralized or decentralized. Public or private refers to who makes the institutions, with public indicating the state and private indicating organizations or individuals. The centralized/decentralized distinction captures the degree to which institutions are codified and responsibility for enforcement is centralized with identifiable functionaries. These two dimensions define three classes of institutions, public-centralized, private-centralized, and private-decentralized (there are no institutions that are public and decentralized in the literature on which we focus). We describe in detail these three classes, and we consider the interdependence between them.

Finally, we consider the question of institutional creation and change. Currently, an evolutionary explanation of institutional change is most prominent. Processes of the selection of social systems (groups, organizations, states) and political competition over institutions push the institutional framework gently in the direction of transaction cost efficiency. "Gentle," however, is key to describing these evolutionary pressures, and consequently, new institutionalists are not surprised to observe inefficient institutions that persist for very long periods of time. Missing from current ideas on institutional change are realistic views of the role of organizations in the process and how beliefs and shared understandings affect change of other types of institutions.

BEHAVIORAL ASSUMPTIONS

To denote the behavioral assumptions of the new institutionalism, it is useful to break down a simple summary of the fundamental behavioral assertion of the theory: "actors pursue their interests by making choices within constraints." The significant classes of actors are individuals, organizations, and states. Individuals constitute the other classes of actors, and are the focus of our discussion of interests and choice. Organizations are defined broadly as groups of all types, whether they are social groups, coalitions, or corporations, structured to pursue some collective purpose. States are a special type of organization ". . . invested with the authority to make binding decisions for people and organizations juridically located in a particular territory and to implement these decisions using, if necessary, force" (Rueschemeyer & Evans 1985, pp. 46–47).

These three classes of actors each produce their own form of institutional constraint: individuals produce private-decentralized institutions, organizations produce private-centralized institutions, and states produce public-centralized institutions. In this sense, it can be said that actors lead a double life in the new institutionalism, pursuing their own interests within constraints, while producing constraints for other actors. The interplay between the actors can best be understood as a three-layered hierarchy, with states superordinate to organizations, which are superordinate to individuals (Nee & Ingram 1998). States constrain organizations and individuals that are their subjects, and organizations constrain the individuals that are their participants. There is also upward influence in the hierarchy, as actors try to affect the institutions that constrain them.

This hierarchy of actors is useful to illustrate some key differences between the choice-within-constraints framework and the cognitive institutionalism and embeddedness arguments that are prominent in sociology. Those latter two lines of new institutional argument recognize the same classes of actors that we do, although in both cases they see all of these actors as embedded in something outside (culture and networks of social relations, variously). This embedding adds other influences, beyond the immediate action frame, on the actors and their relationships. The choice-within-constraints new institutionalism that we focus on strips away those outside influences, and relies on the interplay among individuals, organizations, and states to explain institutions and behavior. One of our goals is to illustrate for sociologists the advantages of this narrowing, although we also recognize many limitations.

Moving from actors to interests and choice, the new institutionalism views individuals as rational in the basic sense of making choices that further their interests. The theory, however, interprets both interests and the rationality of choice much more broadly than neoclassic economics does. For example, the new institutionalism distinguishes itself from neoclassical assumptions of rationality by attending to "cognitive costs" of decision making. The pursuit of benefits is limited by individuals' capacity to retain and process information; in other words, individuals are boundedly rational (Coase 1937, Simon 1957). Furthermore, information is often costly (Barzel 1989). These two factors create transactions costs—the costs of writing and enforcing contracts—because individuals cannot foresee at the time of writing all of the contingencies that might be relevant, nor can they observe all of the actions of their partners. Also, transactions costs give rise to the possibility of opportunism (Williamson 1975).

The possibility of opportunism and its role in the new institutionalism deserve particular attention because opportunism has been the basis of criticism from sociologists and because it contrasts with the emphasis on trust in the network embeddedness approach to economic sociology (Granovetter 1985, Uzzi 1996). Often, the opportunism-trust debate takes place on rhetorical ground, with new institutionalists criticized for unwarranted cynicism (Ghoshal & Moran 1996) and responding with warnings that "there are real dangers in adopting the more benevolent construction" of human nature (Williamson 1994, p. 81). Such debate quickly reaches an impasse, and the gains from intellectual exchange would be greater if the starting point was a recognition that the new institutionalism does not rely on the assumption that individuals will engage in malfeasance, but rather on the assumption that they pursue their self interest. From the assumption of self interest, the interesting question becomes "Why shouldn't individuals engage in malfeasance?" As we explain, the new institutional answer is that sometimes institutions constrain individuals so as to remove the gains from malfeasance.

The problem of credible commitment emerges from the possibility of opportunism, and is at the core of the new institutionalism. It is illustrated by the dilemma faced by a kidnap victim whose kidnapper has a change of heart and decides to set her free (Schelling 1960). The victim gladly promises not to reveal the kidnapper to the authorities in exchange for her freedom. However, the kidnapper realizes that once the victim is free she will have no incentive to keep her promise and reluctantly decides the victim must be killed. More generally, the problem of credible commitment is faced by any party to an exchange who wants to promise in the present to do something in the future that may not be in his or her interest to do when the future actually arrives. The problem is endemic because in almost every exchange there is at least a moment when one of the parties has control over all or most of the goods and must decide whether to follow through on the agreed upon bargain or make a grab for more.

Although the costs of rational decision making have been thoroughly analyzed as the basis of transaction costs and the need for institutions, interests or preferences have been largely ignored. The new institutionalism applies a "thick" view of preferences, which often includes, in addition to material goods, ideology and social goods such as status. In practice, however, nonmaterial preferences have been given short shrift in the theory. This is illustrated by North's (1990, p. 22) characterization of the trade-off between ideological and material preferences: ". . . where the price to individuals of being able to express their own values and interests is low, they will loom large in the choices made; but where the price one pays for expressing one's own ideology, or norms, or preferences is extremely high, they will account much less for human behavior." This is too weak a concession to the role of ideology, particularly in the face of evidence such as that from Poole & Rosenthal's (1996) analyses of the whole history of US Congress roll-call voting, which indicated that ideology explained more of the variance in voting behavior than did economic interests.

Another limitation of the behavioral assumptions is that the new institutionalism, like most other theories based on rationality, suffers from the absence of an explanation for the origin of preferences. This is one of the areas in which sociology is poised to make a critical contribution to the theory. Economists have generally taken a complete set of well-ordered preferences as a starting assumption, although preferences are almost certainly endogenous. Thus the explanation of preferences has been left to others (DiMaggio 1990). Veblen (1899) explicitly recognized the relationship between preference and social structure, and more recently sociologists have argued that preferences are socially constructed (DiMaggio 1990, Friedland & Alford 1991). Certainly, the status and social identity implications of objects explain much of their appeal to consumers. Sociologists are also able to help with explanations of how actors form strategies to achieve their preferences. Strategy formulation is inhibited by bounded rationality, and it is clear that actors do not weigh the full set of means to achieve their preferred ends (Cyert & March 1963). Recent organizational sociology has explained, for example, how corporate diversification or mergers become accepted and popular strategies (Fligstein 1990, Dobbin & Dowd 1997).

OPERATION OF INSTITUTIONS

If the main problem derived from the new institutionalism's behavioral assumptions is transaction costs, institutions can be seen as a partial solution. Institutional rules and their enforcement mechanisms can structure the interactions of actors such that the costs of acquiring and processing information are less debilitating, and the opportunities for malfeasance are reduced. This proposition raises a number of questions. Who makes rules? How are the rules made? Who enforces the rules? And how are the rules enforced? In this section, we briefly discuss each of these questions and then examine the literature on three broad classes of institutions.

Institutions are typically categorized as formal or informal (North 1990, Nee & Ingram 1998). We use a more fine-grained categorization based on two dimensions, who makes the rules (the state or some other entity) and how are they made and enforced (in centralized or decentralized fashion). We use this two-dimensional categorization scheme because we think it is better than the formal/informal categorization for (*a*) differentiating the most relevant distinctions between institutional forms, (*b*) emphasizing the ways that different institutional forms are interdependent, and (*c*) relating the different institutional forms to the actors with which they are most closely associated.

States make rules in a centralized manner, but so do other entities. Many clubs and other organizations, like the American Medical Association, create rules in much the same way as a state does, through the actions of one or more appointed or elected members. Rules, however, may also arise in a decentralized way, through interaction and taking the form of norms. Norms may specify that neighboring ranchers look out for one another's cattle or that coworkers cover for one another in an illness. In what follows, we refer to institutions as being one of three types: public (effectively, public-centralized), private-centralized, or private-decentralized.

If institutions are constraints, it is not sufficient for rules to exist; they must also be enforced. Enforcement can be by the party who was harmed (second-party enforcement) or some other party (third-party enforcement). Public and private-centralized institutions typically have third-party enforcement. For instance, the US government punishes individuals who are convicted of federal crimes. Similarly, the California State Bar Association can vote to suspend a member's license to practice law. Except in rare cases, the breaking of the rule did not harm the federal government or the California Bar. In contrast, private-decentralized institutions can have either third-party or second-party enforcement. For instance, among medieval merchants, one merchant might refuse to interact in the future with a merchant who had cheated him, a form of second-party enforcement. If other merchants also refused to interact with the cheater because of this episode, then punishment would also be of the third-party type.

A related issue is how rules are enforced. Many institutions offer some form of dispute resolution to ensure that a rule has actually been broken before the sanctions are applied. The government maintains a court system for this purpose, trade groups maintain arbitration panels, and, even in decentralized institutions, the parties may at times turn to an impartial third party. Sanctions, if they are deemed necessary, can take a variety of forms, both economic and noneconomic. Economic sanctions can include fines, restitution, or penalties that impair future earnings, such as restrictions on economic activity. Noneconomic sanctions can include loss of certain rights, status, or interaction with certain groups. For example, social groups often punish indiscretion with ostracism.

Against this background on the nature and enforcement of institutions, we now examine in detail the three institutional forms we have identified. We emphasize the ways that each institutional form operates to affect the choices of actors. We also identify interdependencies among the forms.

Public Institutions

There are four major ways that the public institutions provided by the state can be understood to affect its choices and those of organizations and individuals. First, the state may smooth exchange between its subjects by providing institutions that allow them to make credible commitments. This can be achieved if the state provides a legal system to protect property rights, decrease transaction costs, and enforce contracts. Spicer (1997) illustrates the role of such a system by examining a case in which the state did not play this role, the mass privatization of financial markets in Russia from 1992 through 1996. During this period, regulation of organizations that had formed to attract consumer savings was weak to nonexistent. It was unclear who had regulatory authority in the market, and the contenders to supply regulation lacked the necessary resources. A number of well-publicized and unpunished scams by organizations in the industry reduced the willingness of Russians to transact with financial organizations. The institutional weakness was recognized by the executive of a US bank operating in Russia, who expressed a wish that the state would regulate his bank more heavily. Such a hope sounds unusual coming from an American banker, but it indicates how the state enables the credible commitments of subject organizations by constraining them.

There is quantitative evidence of the role of public institutions for enabling credible commitments. Some studies exploit changes in laws governing specific industries to show that increased legal constraint on organizations causes them to flourish. Studies of populations as diverse as US health maintenance organizations and telephone companies, Toronto day-care centers, Niagara Falls hotels, and Singapore banks have demonstrated that their failure is reduced by increasing government involvement in monitoring, certifying, authorizing, and endorsing their activities (Wholey et al 1992, Barnett & Carroll 1993, Baum & Oliver 1992, Ingram & Inman 1996, Carroll & Teo 1998). The effects of broader changes in public institutions are seen in Ingram & Simons' (2000) analysis of the effect of the formation of the Israeli State on the failure rates of workers' cooperatives in many industries. The transition from the weak British Mandate for Palestine to the strong Israeli State caused a radical improvement in the institutional support for credible commitment and a corresponding 60% decrease in organizational failure rates.

Stone et al (1996) use, to exciting effect, a comparative analysis of the institutions of Chile and Brazil as these institutions affect their countries' garment industries. Brazilian laws governing the economy are so complex and their enforcement so expensive that "... [public] institutions could not be relied on for dealing with day-to-day problems in regulation and business transactions" (100). By contrast, Chile is ". . . regarded as having a relatively well-defined property-rights system and a liberal economy" (102). The comparison between the two supports the claim that effective public institutions facilitate economic exchange, but also indicates that private institutions may often be a decent substitute. In some areas, Chile appeared to have lower transaction costs than Brazil. For example, customer orders were much more likely to be renogotiated before delivery in Brazil, and, as a result, Brazilian garment manufacturers were less likely to produce customized goods. In other areas, however, private institutions have arisen in Brazil to offset the inefficiency of public institutions. Starting a business in Brazil requires the negotiation of complex government rules, but specialized professionals handle the details in ∼7 weeks, for an average cost to the founding firm of $640, comparable with the time and expense of starting a business via Chile's simpler process. And Brazilian garment manufacturers rely heavily on credit, despite the cumbersome and expensive contract enforcement procedures they face. Apparently, they substitute a reliance on reputation, facilitated by institutions of credit agencies and customer credit references. The emergent picture of an interdependence between public and private institutions presents a rich set of questions for the new institutionalism. This issue reasserts itself repeatedly as we discuss the various institutional forms.

The second key feature of public institutions is whether the state can credibly commit to not subsidize subject organizations when they struggle. The recent transitions from state socialism have demonstrated that, absent such a commitment, entrepreneurs will direct their energies towards "holding up" the state treasury rather than to producing economic value. As Stark & Bruszt (1998, p. 119) put it, when the state hears organizations' ". . . siren cry, 'Give me a hand, give me your hand,' it must be bound to respond not simply that it should not, or that it will not, but that it cannot." McFaul (1995) describes the problem of state subsidies to enterprises in Russia, which, by the spring of 1993, were estimated to be 22% of the gross domestic product. According to McFaul, state weakness was the cause of Russia's failure to make credible its commitments not to subsidize. Stark & Bruszt (1998) refine that position by emphasizing that state strength is relative to the strength of other actors. Their analysis of transformations in east-central Europe shows that efforts to credibly commit against subsidies were sometimes implemented not by strengthening the state, but by attempting to weaken subsidy-seeking groups by limiting the size and interconnectedness of organizations.

The third key feature of public institutions is an outgrowth of the first two. A state that is strong enough to guarantee the property rights of its subjects and to resist their calls for subsidies is also strong enough to appropriate their wealth (Weingast 1993). Unless the state can credibly commit itself against such appropriations, its subjects' incentives for productive economic activity will be greatly curtailed. This is aptly illustrated in North & Weingast's (1989) account of the Stuarts' impact on the economy of seventeenth century England. After coming to the Crown in 1612, the Stuarts exploited their subjects in numerous ways: they sold monopolies (at the expense of industry incumbents and potential entrants), they sold special dispensations from laws, and they even committed outright theft, as in 1640 when they seized £130,000 that private merchants had placed in the Tower of London for safekeeping. Evidence that citizens recognized the parasitic nature of their sovereign and incorporated it into their economic calculus comes from the Stuarts' inability to raise debt through normal means (they resorted to "forced loans," the payment terms of which they subsequently violated). These abuses [among other causes (Carruthers 1990)] led eventually to the Glorious Revolution of 1688, which resulted in numerous institutional changes to reduce the Crown's capacity to act independently of Parliament and the courts. This loss of Crown autonomy had, however, positive implications in that it enabled the Crown to make a credible commitment not to appropriate subjects' wealth. The value of this commitment can be seen in the dramatic increase in the Stuarts' capacity to borrow funds—government debt grew 17-fold in the 9 years after the revolution. North & Weingast argue that the improvements in Crown finance were mirrored by improvements in private financial markets.

Striking as this account is, to attribute the state's capacity to make credible commitments to a constitutional division of powers is to finesse the central issue. If a state is powerful enough to enforce property rights, why need it be constrained by the "parchment barrier" provided by a constitution? Why doesn't the state simply break the law? Weingast (1993) examines this question with a game-theoretic analysis. He considers a state that decides whether to transgress against each of two constituent groups, which in turn decide whether to acquiesce to or challenge the state. The repeated game has multiple equilibria, but the normal diversity of interests among constituents makes it more likely that the game will result in an equilibrium in which the state transgresses the rights of some constituents and retains the support of others. The "credible-commitment equilibrium," in which the constituents challenge the state for any transgressions, and the state therefore abstains from transgressing, can be expected only if there is substantial agreement among constituents about the appropriate role and limits of the state. "[T]he foundations for institutional restriction fundamentally rest on the attitudes of citizens." This recognition of the normative underpinnings of public order may sound to sociologists like a second Glorious Revolution. Certainly, it is sociology that is best positioned to explain how individuals come to share attitudes towards the state, and indeed this question has been the subject of recent sociological effort (Meyer et al 1997).

Fourth and finally, some institutions provided by the state are not to be understood as part of a grand effort to facilitate the credible commitments of actors, but rather in terms of the distributional battles over zero-sum interests (Knight 1992). These may be the battles between suppliers and consumers, as shown in Dobbin & Dowd's (1997) analysis of the effects of competition policy on railroad foundings in early Massachussetts. Or they may be the battles between rival organizational forms without apparent efficiency differences, as for thrift-savings organizations that fought as much in the legislative arena as in the market (Haveman & Rao 1997) or national coffee roasters in the United States, that derived a competitive advantage over regional roasters through an international treaty (Bates 1997).

Although our categorization of institutions as public/private and centralized/decentralized suggests two types of public institutions, centralized and decentralized, this discussion of public institutions has been exclusively about public-centralized institutions. In the choice-within-constraints framework, the public-decentralized cell is empty—there is no literature on state-level institutions that emerge without central authority. New institutional sociologists, however, have addressed that cell, describing the equivalent of national and international norms of state structure and behavior that emerge through cultural and associational processes (e.g. Fligstein & Mara-Drita 1996, Meyer et al 1997, Dobbin & Sutton 1998). The failure of the choice-within-constraints theory to account for the influence of national culture and world society is one of the costs of its reliance only on influences within the immediate action frame created by interacting individuals, organizations, and states.

Private-Centralized Institutions

Private-centralized institutions may be divided into two types based on the nature of their effects on actors: those that govern property rights, and those that enable transactions. The first type is illustrated in the American West of the nineteenth century, where individuals formed claims clubs, cattlemen's associations, and mining districts to protect their property rights in agricultural, ranch, and mineral-bearing land. In each case, they reaped or tried to reap the benefits from excluding others. Members of claims clubs in Iowa prevented speculators from buying up the land they had been squatting on (Bogue 1958). Ranchers in the American West who ran their cattle on federal land kept out later arrivals by excluding them from the roundup (Dennen 1976). Also, during the California Gold Rush, groups of miners established mining districts on federal land that allowed individuals to mine without interference from others (Umbeck 1981, Clay & Wright 1999). All of these groups had some type of written rules, although, as Clay & Wright show for mining districts, written rules were often augmented by norms or even supplanted by them. Enforcement was at least nominally centralized, with members of the claims club, cattlemen's association, or mining district using third-party enforcement to protect their property rights. This enforcement took different forms in each case: for claims clubs, it was physical force against speculators; for the cattlemen's association, it was exclusion of outsiders from the annual roundup, an economic penalty; and for mining districts, it was removal of interlopers by physical force. By enforcing rules against speculators buying their land, later entrants running cattle on federal land, or new miners seizing property held by others, members provided outsiders with incentives to respect their property rights.

The formation of private-centralized institutions to govern property rights is not just a historical phenomenon. Ostrom (1990) documents a variety of contemporary institutions that have arisen to manage property rights over resources that are common property (that is, resources that are held in common by many actors). Some or all of the individuals who hold the property in common make the rules, and enforcement is through third-party imposition of economic and social sanctions. One difference between these institutions and the ones in the previous paragraph is the types of incentives that the rules and enforcement create. In this case, rules and third-party enforcement of these rules create incentives for members not to overutilize the resource, rather than for outsiders to respect members' property rights. For example, in Torbel, Switzerland, alpine meadows are held in common by the 600 villagers. Grazing rights are allocated based on the number of cows that a citizen can support in the winter. During the summer, a group of herdsmen tend the village cattle in the communal meadow. Milk from the cows is used to produce cheese that is allocated to families based on the number of cattle that were grazed. Elected officials hire the herdsmen and impose fines on households who misuse the commons by sending too many cattle (Ostrom 1990, pp. 60–65).

Private-centralized institutions do not always arise to address common-property problems. Johnson & Libecap (1982) address the question of why these institutions do not arise, in a study of the shrimp industry in the Gulf of Mexico. In this industry, over-fishing is an ever-present problem. During the 1930s, 1940s, and 1950s, an industry association had managed shrimp stocks on the Gulf Coast by setting price floors that made it unprofitable to harvest small shrimp. Union members were given incentives to adhere to the price floors through fines, and the union pressured packers not to buy below union price or from nonunion shrimpers. In 1956, however, the Fifth Circuit Court of Appeals found the union to be in violation of the Sherman Act, making further efforts to limit entry or effort illegal. This illustrates the interdependence between institutional forms, because it was a public institution that defeated a private-centralized institution that was designed to solve the problem of over-fishing. In other cases, private-centralized institutions cannot solve common-property problems because of the difficulty of monitoring compliance with the institutions or because of holdout by actors with a stake in the common property (Wiggins & Libecap 1985).

Examples of the second role of private-centralized institutions, to govern trade, date at least from the rise of merchant guilds in the late-medieval period. Although some authors have interpreted these guilds as a vehicle for merchants to capture rents by limiting entry, Greif et al (1994) provide evidence indicating that their real purpose was ". . . to allow rulers of trade centers to commit to the security of alien merchants." The guilds created incentives for rulers to respect member merchants' rights by credibly committing to end trade if these rights were violated. Guilds had and enforced rules that required members to punish by ostracism any members found to be trading with rulers who had violated members' rights. Third-party enforcement by the guild of these rules through the imposition of fines or other sanctions created incentives for members not to trade with such rulers, thereby making a guild's commitment to end trade credible.

In the twentieth century, a private-centralized institution has arisen to facilitate trade in the diamond industry. Bernstein (1992) examines the rules that govern transactions and the reasons why diamond dealers have chosen to enforce these rules through a private-centralized institution and not through standard legal channels. As in the foregoing cases, members are governed by formal written rules that represent the codification of, and are supported by, industry norms. Bernstein finds that the use of arbitration panels and mandatory prearbitration conciliation is a response to members' need for speed, secrecy, and specialized knowledge of industry laws and norms. The industry enforces arbitration decisions with the threat of suspension of membership in the diamond bourse. In the case of noncompliance, a bourse faxes the individual's picture to all other diamond bourses worldwide. Informed of noncompliance, members then refuse to trade with the individual in question because of the risk that they will be cheated. Through this reputation mechanism, the institution creates incentives for members to adhere to industry rules and norms in their transactions with other members.

The most ubiquitous private-centralized institutions that govern trade are organizations that internalize transactions. In his seminal 1937 paper, Coase took up the pivotal question of why organizations exist. His central insight was that the governance of exchange within organizations as opposed to markets depended on the cost of transacting in each type of institution. In more recent work, Williamson (1985) and others have systematically investigated the effect of information, opportunism, and asset specificity on the governance of exchange, concluding that, in some transaction environments, exchange is more efficient within an organization than the market. Furthermore, the prevailing public institutions influence the attractiveness of various governance arrangements (Nee 1992). Ficker (1999) illustrates the relationship between the environment of public institutions and other factors, and the market/organization trade-off in the evolution of the Mexican Central Railroad. The Mexican Central Railroad was founded in 1880 into "a country characterized by economic backwardness and an incipient and precarious institutional framework." The company initially pursued a strategy of building main lines and depending on market transactions with railroads and other types of transportation organizations to supply them with freight. These market transactions did not materialize, however, owing to the weak Mexican infrastructure, and the difficulties of organizational and technological coordination. In response to this failing of the market, the Mexican Central Railroad switched to a strategy of internalization, extending its trunk lines and building branch lines to supply itself with freight.

Private-Decentralized Institutions

Institutions of the third form—those consisting of private-decentralized rules such as norms—were widely ignored until recently, no doubt because they are much less visible than centralized institutions. An exception to the neglect of this category was the pioneering work by Macaulay (1963) on contract enforcement by executives. Macaulay showed that, when problems arose in a relationship, business norms dictated that the two parties attempt to resolve the problem informally rather than go to court. This was true even if going to court would have provided a higher payoff for the plaintiff. Plaintiffs had an incentive to agree to informal resolution, because developing a reputation for litigiousness would adversely affect future business dealings within the community.

Private-decentralized institutions have also been seen to support long-distance trade in the absence of a legal system. In long-distance trade, merchants can often profit from using other merchants as agents to sell goods, collect debts, and so forth. This agency relationship, however, raises the possibility that the agent will act opportunistically, keeping some or all of the monies owed. The Maghribi traders in the eleventh century western Mediterranean (Greif 1989, 1994) and American merchants on the nineteenth-century California coast (Clay 1997a, 1997b) overcame this problem by forming coalitions, which allowed exchange to flourish. In both cases, merchants in the coalition conditioned future use of other merchants as agents on those merchants' having acted in accordance with group norms in the past. For instance, when a Maghribi merchant was accused of cheating in 1041–1042, he found that "people became agitated and hostile and whoever owed [me money] conspired to keep it from me" (Greif 1994, p. 925). Merchants checked on agents' past behavior and verified trade-related information in letters to one another, creating an information network. By tying future economic gains to past behavior as an agent, merchants were able to ensure that the future gains to membership in the coalition were greater than the gains to cheating and being punished. Punishment was decentralized in that each merchant, having learned that an agent had violated group norms, then had an incentive not to interact with that merchant in the future because he expected the merchant to cheat him. The incentives created by this reputation mechanism enabled merchants to enter into and enforce contracts in the absence of a legal system.

The ability of private-decentralized institutions to support "order without law" goes beyond trade. For instance, Reid (1980) shows that, on the Overland Trail during the nineteenth century, individuals acted as if laws existed, carrying prevailing legal norms with them, even though there was no legal system to enforce them. The threat of social and economic ostracism on the trail created incentives for individuals to adhere to the norms that led to order. In addition, Ellickson (1991) documents Shasta County cattlemen's use of norms that dealt quickly and effectively with the ongoing problem of cattle that strayed and damaged neighbors' property. By tying the prompt return of stray cattle and other forms of cooperation to adherence to norms, the institution created incentives for cattlemen in the area to act in accordance with the norms. There were laws regarding stray cattle, but few cattlemen knew them, and fewer still relied on them.

Nee & Ingram (1998) argue that decentralized-private institutions, which exert the most immediate control on individuals, determine the effectiveness of institutions of the other two forms. Whether pubic- or private-centralized institutions have their intended effects will depend on whether private-decentralized institutions encourage individuals to accede to or oppose them. Heckathorn (1990) presents formal models to show that the coercive efforts of states may fail if affected populations develop "opposition norms," which supply social rewards for opposing state coercion. Homans' (1950) reanalysis of the Bank Wiring Room shows a similar result for the private-centralized institutions maintained by the Western Electric Company. There, norms in the work group influenced employees to engage in behavior that was the opposite of what the organization's pay system tried to encourage.

Embeddedness theory, from economic sociology, is also informative about the operation of private-decentralized institutions. Indeed, at the surface level of observed causes and effects, the two approaches are sometimes difficult to distinguish. For example Maurer & Haber's (1999) new institutional analysis and Uzzi's (1999) embeddedness analysis both find that organizations' access to bank loans is greater if they have social relationships with their bankers. There are differences, however, in the behavioral assumptions that these two theories use to arrive at predictions. New institutionalists believe that the significance of interpersonal relationships is in their capacity to create social sanctions, which give norms their teeth. Participants adhere to norms when to do so is justified by a comparison of current and future payoffs for adhering to or violating the norm (Ulman-Margalit 1977). In contrast, embeddedness theorists argue that social relationships have a logic of their own, which is sometimes divorced from the rational calculus of benefits (Granovetter 1985, Uzzi 1996). New institutionalists could gain by incorporating something of the embeddedness view of relationships, because even rational-choice theorists concede that interpersonal relationships rest on more than calculated self-interest and that norms are sometimes internalized (Coleman 1990).

It is also true that embeddedness theory could gain from the new institutionalism, because the latter theory has gone farther towards understanding the role of interpersonal relationships in the broader institutional framework. Greif's (1994) seminal study comparing the institutions that the Maghribi and the Genoese used to support long-distance trade in the Mediterranean during the late Medieval Period illustrates the limitations of private-decentralized institutions (embeddedness). We previously described the Maghribi coalition in which trade was embedded in a network of coethnics with close informational ties. In contrast, in the twelfth century, the Genoese used vertical agency relations under which merchants were almost never agents, agents could be of any ethnic background, and information was not shared. Merchants began to rely on a public institution—the legal system—to enforce contracts. Thus trade became more anonymous, allowing the Genoese to respond effectively to the geographic expansion of trade. In contrast, the Maghribi merchants' reliance on the information network and the need for merchants' to be of a specific ethnic background and to act as agents may have limited their ability to expand geographically. The lesson here is that there is a limitation to managing exchange through relationships, because relationships can only be stretched so far while maintaining the characteristics that make them effective. For some forms of exchange, particularly those over large spans of space and time, centralized institutions may be more effective than private-decentralized institutions or embedded relationships.

A final issue, both for the relationship between decentralized-private institutions and other institutional forms and for the relationship between the new institutionalism and other sociological theories, concerns the beliefs and shared understandings held by individuals. It is becoming increasingly apparent that these mental constructs affect the operation of both public- and private-centralized institutions. For instance, North (1993), comparing the performance of public institutions from Western economies to those making the transition from state socialism, attributes variance in performance to differences in the mental constructs of individuals in different societies. In addition, Williamson (1975) argues that the appropriate mode of governance in an organization will be conditioned on the prevailing "contractual atmosphere," by which he means the receptiveness of individuals to alternative governance modes. Despite the importance of beliefs and shared understandings, the new institutionalism that is our focus has little to say about how they are acquired. Organizational theory's cognitive new institutionalism, however, has made this one of its central questions (Meyer & Rowan 1977, Powell & DiMaggio 1991, Scott 1995). It contends that individuals come to beliefs and shared understandings through processes of social construction. It offers another institutional form, cognitive institutions, which act as interpretive lenses for social facts, including other institutions. Without downplaying the difficulties of combining ideas from theories with very different behavioral assumptions, the choice-within-constraints framework needs a concept like that of cognitive institutions.

INSTITUTIONAL CHANGE

New institutionalists need to account both for how institutions emerge and change and for the timing of emergence and change. Early work on institutions by Davis & North (1971), North (1981), Williamson (1975, 1985), and others asserted that efficient institutions would emerge and change as the need arose and that the timing of their emergence or change would be economically optimal. This view has now largely been discredited by economists and sociologists. In a now famous critique, Granavotter (1985) attacked Williamson's early accounts of institutional change as bad functionalism. What made Williamson's arguments bad functionalism was that they did not do a sufficient job of tying the function of institutional forms to the mechanisms by which they came to predominate. Even North's (1993, p. 12) view has changed; as he puts it, "there is . . . little evidence to support the view . . . that the necessary institutions will be the automatic outcome of getting the prices right."

The challenge for institutionalists is to create a richer theory of the origin and change of institutions. One of the biggest barriers to creating a richer theory is a lack of empirical work, particularly on private institutions. Ostrom's (1990) discussion of the emergence of institutions to govern water in the Los Angeles Basin, and Ingram & Inman's (1996) study of the emergence of an institution to promote tourism at Niagara Falls are some of the few accounts of the origin of private institutions. Yet, precisely how actors overcome the second-order collective action problem inherent in the creation of institutions is central to any theory of the origin of institutions. Empirical studies of change are equally scarce. Part of the problem is that most private institutions are not well documented, making it difficult to do careful, detailed empirical work. Ostrom's and Ingram & Inman's work suggests that studies can be done; more studies are badly needed.

The limited empirical work that has been done has focused on public institutions. North (1993) summarizes the current understandings, beginning with the emphasis on organizations as the primary source of institutional change: "... competition forces organizations to continually invest in skills and knowledge to survive. The kinds of skills and knowledge that individuals and their organizations acquire will shape evolving perceptions about opportunities and hence choices that will incrementally alter institutions" (p. 17). The organizational engine of change operates within the existing institutional framework, which affects efforts to change institutions because existing organizations have a stake in the status quo (North 1990). Particularly relevant parts of the existing institutional framework are the beliefs and shared understandings of individuals, which frame proposed institutional changes.

North's summary points to two key questions that must be answered for a theory of institutional change to advance. First, if organizations are the motor of institutional change, then the new institutionalism needs a theory of organizational action and change. Empirical work suggests that organizations are inertial, that they pursue noneconomic interests, and that they are only boundedly rational. Organizations are notoriously poor filters of changing interests because they are rife with inertia (Hannan & Freeman 1984), so much so that they tend to reflect the conditions of their founding, even decades later (Stinchcombe 1965). Having been founded to exploit a given institutional framework and with limited capacity to change, existing organizations are favored by stability of institutions. Rather than the source of pressure to change institutions, existing organizations are a source of resistance to institutional change. And although it is true that entrepreneurs are driven to develop new skills and knowledge, they tend to exploit these opportunities through new types of organizations (Ingram 1998).

Efforts to effect institutional change may be motivated by a variety of factors, of which economic interest is only one. Carruthers (1990) points to the role of noneconomic interests for institutional change in a criticism of North & Weingast's (1989) account of the Glorious Revolution. This instance of institutional change, among the most celebrated in terms of the gains in economic efficiency it created, was, according to Carruthers, largely the product of religious competition, determined by "popery, not property." The prominence of noneconomic interests does not decline when competing organizations are the engines of institutional change. Organizations, like individuals, pursue political ideologies, even at substantial material expense (Simons & Ingram 1997). Organizational efforts to change institutions often reflect a mix of economic and noneconomic interests. For example, hotel chain entrepreneurs in the United States of the 1920s changed institutions surrounding training by establishing university hotel schools, partly to generate the professional managers their organizations required, but also in the hope that university education would improve the social status of their occupation (Ingram 1998). In other instances, organizations seek to affect institutions for purely ideological purposes, but economic results occur as well, as when the Women's Christian Temperance

Union lobbied for prohibition legislation that forced breweries out of business in the jurisdictions in which it was passed (Wade et al 1998).

Finally, the bounded rationality that the new institutionalism attributes to individuals does not conveniently disappear when those individuals form organizations (Cyert & March 1963). As North (1993) notes, the complexity of the institutional framework presents a particular strain on actors that might manage to be more or less rational when making simple decisions. Consequently, even if inertial organizations pursue their varied interests by trying to change institutions, there is no reason to believe that they will always attempt the right changes. It is not uncommon to find that organizational efforts to change institutions in their favor backfire (Ingram & Inman 1996, Wade et al 1998).

The second key question that emerges from North's summary is, like the need for a better organizational theory, one that sociologists are already working to answer. It concerns the role of beliefs and shared understandings, which were also identified as relevant to the operation of institutions. Beliefs and shared understandings feature prominently in efforts of institutional change as they define the perceived legitimacy of institutional arrangements, forming the frames through which proposed changes can be related to broader societal interests (Fligstein 1997, Rao 1998). This framing may determine what institutional alternatives are accepted or rejected. This is seen in the efforts of South American coffee producers to present US acquiescence to the International Coffee Organization, a treaty-based cartel that raised prices to consumers, as necessary to fight communism (Bates 1997). It is also apparent in the efforts of hoteliers in Niagara Falls, Ontario, and Niagara Falls, New York, to frame laws that aimed to make the Falls more attractive for tourists, as acts of nationalism in a United States-Canadian rivalry (Ingram & Inman 1996). These examples make it clear that the process of institutional change goes far beyond the weighing of competing interests. Instead, it appears to be as much a comparison of rhetorical claims, the outcome of which depends on deep social values of the audience.

This argument contributes to a broader recognition that, in institutional change as in the operation of institutions, centralized actions often rely on decentralized ones. Knight (1992) offers a theory of institutional change that is notable in that it focuses on social norms as the foundation for change in other types of institutions and it focuses on the distributional consequences of institutions. Often, new institutionalists are sufficiently taken by the public-good nature of many institutions that they characterize them as cooperative arrangements that benefit all. In contrast, Knight emphasizes that institutional change always has distributional consequences and that bargaining between interested parties is the process that determines institutional outcomes. The role of such bargaining seems clear when we consider change in centralized institutions, like a law that would favor some financial organizations but disfavor others (Haveman & Rao 1997), but Knight argues that bargaining also occurs over decentralized institutions and that relative bargaining power determines which social norms arise and persist. Knight & Ensminger (1998) illustrate the argument with a case study of changing norms among the

Galole Orma of the Tana River District, Kenya. The norm of clan exogamy, for example, is declining among the Orma. This change occurred after a redistribution of bargaining power from those who the old norm favored—the clan elite who hope to build alliances through marriage ties—to those it harmed—young men and women who want more freedom to choose marriage partners.

Hopcroft (1998) also examines the role of institutional interdependence for institutional change, arguing that changes in state laws and ideologies flowed from local institutions in rural villages. In doing so, Hopcraft challenges the emphasis on public institutions to explain economic development in the Western world (North & Thomas 1973), observing that, in preindustrial England, there were local differences in economic action and performance, although regions shared the same umbrella of state institutions. Hopcraft attends particularly to the differences between the champion (regular open-field) system of central England and the nonchampion systems of eastern and southwestern England, arguing that the nonchampion systems, which provided for more individual property rights, resulted in lower transaction costs and higher productivity. Beyond that, these private-centralized institutions formed the groundwork for subsequent institutional change. Enclosure occurred early and easily in the nonchampion regions, whereas it was late and difficult in champion areas, often forced by an act of Parliament. The nonchampion regions adopted wage labor, while feudal rules persisted elsewhere. People from the nonchampion regions also spearheaded efforts to change state institutions, for example, campaigning against the granting of royal trading monopolies and supporting the parliamentary cause in the Civil War of the 1640s. Hopcroft goes as far as to attribute ideological change, in the form of a shift from a communitarian culture to one of puritanical, civic-minded individualism, to the advantages of the nonchampion system.

CONCLUSION

The potential of the choice-within-constraints new institutionalism is apparent in the scope of the preceding sections. This is a theory that can be applied to explain a substantial portion of the performance and change of all social systems, including states, organizations, and groups. This comprehensiveness is also what is most exciting about the empirical analyses conducted within the paradigm. The new institutionalism has been applied to explain the differential performance of economies throughout history, the structures of parliaments, the rise and fall of particular organizations and industries in the twentieth century, and even changes in marriage norms of African tribes. Impressively, these phenomena are tackled without falling back on a trivial theory of action—the behavioral assumptions of the new institutionalism recognize the constraints on human information-processing capability and the range of interests pursued by individuals, organizations, and states. Indeed, the recent trend is to give an increasing role to the influence of ideologies, beliefs, and shared understandings on behavior.

At the same time, there remain many weaknesses in the new institutionalism. Sociologists are particularly well positioned to address the key weaknesses in the theory. In the behavioral assumptions, there is a need for a theory of the origin of preferences. Preferences, no doubt, arise partly through processes of social interaction, which are deep within sociological territory.

Our categorization scheme for institutional forms allowed us to identify and describe three. This approach indicated that there were interdependencies among the forms across the dimensions of categorization: public institutions rely on private institutions, and centralized institutions rely on decentralized institutions. These interdependencies are also reciprocal. Sociological theory can be useful in unpacking the interdependencies. In particular, embeddedness theory and cognitive new institutionalism can contribute to understanding private-decentralized institutions, which are the foundation of the institutional framework.

Regarding the question of institutional change, the emerging answers emphasize the role of competing organizations as an engine for change and the importance of framing institutional alternatives for legitimacy. Sociology's organizational theory can provide the necessary underpinnings for a change theory that is driven by organizations. At the same time, cognitive new institutionalists in sociology have begun to analyze the processes of cultural entrepreneurship through which an institutional alternative comes to be accepted.

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