29. Economic Sociology and New Institutional Economics

VICTOR NEE and RICHARD SWEDBERG

When economic sociology appeared on the academic scene in the mid-1980s its interactions with New Institutional Economics were soon plentiful as well as productive. Especially the ideas of Oliver Williamson and Douglass North were often discussed and found useful. That this was a fruitful interaction is exemplified not least by the fact that Williamson's notion of "hybrid" was developed in response to comments on his distinction between markets and hierarchies by some sociologists. The concept of "transaction cost" soon became part of the sociological language, and sociologists suddenly seemed more receptive to ideas of economists than they had been for a very long time.

A few years later, however, the interactions between new institutional economists and economic sociologists began to become less frequent and productive. A number of sociologists have continued to visit the annual meeting of ISNIE, and articles by sociologists occasionally appear in a journal such as *Journal of Institutional and Theoretical Economics*. There is also the recent anthology by Mary Brinton and Victor Nee—*The New Institutionalism in Sociology* (1998)—which represents a very successful attempt to bring together sociologists and economists around the issue of institutions. On the whole, however, since a decade or so there is considerably less interaction than one could have wished for.

This chapter represents an attempt to remedy this situation and further a two-way traffic between economic sociology and New Institutional Economics. We feel that economic sociology has enormously much to learn from New Institutional Economics and that this Handbook can play a constructive role in this process. We also feel that economists working in the tradition of New Institutional Economics may want to be better informed about what has been happening in economic sociology during the last few years, not least when it comes to such common interests as the concept of institution and the role of institutions in economic life. Reflecting these concerns, we have structured this chapter in the following way. We will first summarize developments in economic sociology since the early 1990s, when the link between the two fields started to become weaker. We shall the turn to the concept of institution and how it can be improved. We will also relate the concept of institution to norms, similarly trying to advance the discussion by introducing some new ideas.

C. Ménard and M. M. Shirley (eds.), Handbook of New Institutional Economics, 789–818.

1. Economic Sociology: Recent Developments

The last ten to fifteen years have been characterized by an extremely dynamic growth in economic sociology and also by the gradual institutionalization of this field (see Table 1). Some new topics have been broached, such as wealth, entrepreneurship and the role of law in the economy. Earlier insights have been elaborated upon and developed in new directions. The latter is true, for example, for Mark Granovetter's well-known ideas about embeddedness and Harrison White's theory of production markets. There is also an ongoing attempt to consolidate the insights in economic sociology by going back to the classics and learn from these.

What struck economic sociologists as important in the mid-1980s differs to some extent from what they see as important today. The same is true for the relationship of economic sociologists to economic theory: what they saw as important two decades ago is not necessarily what they find suggestive and interesting today. The concern with transaction costs, for example, has grown

Table 1. Contemporary Economics Sociology

Programmatic Statements: Popular Classics: Max Weber, *Economy and Society* (1920); Karl Polanyi in *Trade and Market in the Early Empires* (1957); also Karl Marx, *Capital* (1867)
Modern Landmarks: Mark Granovetter, "Economic Action and Social Structure: The Problem of Embeddedness" (1985); also: Pierre Bourdieu, "Principles of Economic Anthropology" (1997, 2001).

Basic Approach: Economic phenomena can be analyzed with the help of the sociological apparatus (its ideas, concepts and methods). The relationship between economic phenomena and non-economic phenomena is central as well.

Central Conceptual Tools: embeddedness, networks (including actor-network-theory), an interest-based concept of institutions, fields (organizational and other), capital (social, cultural and so on).

Introductions to Economic Sociology: *Handbook of Economic Sociology* (1994, 2nd ed. forthcoming in 2005); *Sociology of Economic Life* (main reader); Sarah Babb and Bruce Carruthers, *Economy/Society* (undergraduate textbook); Richard Swedberg, *Principles of Economic Sociology* and Carlo Trigilia, *Economic Sociology* (medium-level introductions); Mary Brinton and Victor Nee (eds.), *The New Institutionalism in Sociology* (economists and economic sociologists, advanced introduction).

Current Strongholds: In the United States: major universities such as Cornell, Stanford, Berkeley, Princeton and Northwestern; also some business schools, such as the Sloan School of Management (MIT) and the University of Chicago Business School. In Europe, economic sociology is especially strong in France (Paris, Lille), Germany (Goettingen, Cologne), England (London, Cambridge) and Scotland (Edinburgh).

Key People: Wayne Baker, Jens Beckert, Nicole Woolsey Biggart, Luc Boltanski, Mary Brinton, Ronald Burt, Michel Callon, Bruce Carruthers, Gerry Davis, Frank Dobbin, Peter Evans, Neil Fligstein, Bai Gao, Gary Gereffi, Mark Granovetter, Mauro Guillén, Karin Knorr Cetina, Donald MacKenzie, Mark Mizruchi, Victor Nee, Joel Podolny, Walter Powell, Richard Swedberg, Laurent Thevenot, Brian Uzzi, Harrison White and Viviana Zelizer

Recent Key Monographs: Pierre Bourdieu, *Social Structures of the Economy* (2004), Jens Beckert, *Unearned Wealth* (forthcoming), Bruce Carruthers, *City of Capital* (1996), Frank Dobbin, *Forging Industrial Policy* (1994), Neil Fligstein, *The Transformation of Corporate Control* (1990), Mark Granovetter, *Getting A Job* (1974, 1995), Richard Swedberg, *Max Weber and the Idea of Economic Sociology* (1998), Harrison White, *Markets from Networks* (2002), and Viviana Zelizer, *The Social Meaning of Money* (1994).

weaker; while the interest for work by economists on institutions has grown steadily in importance. While studies of markets in a decade or so ago routinely commented on transaction costs, this is not the case today. There is also a growing sense that that economic sociology and behavioral economics have quite a bit in common.

Theory and Theory Related Advances

When economic sociology was revived in the mid-1980s sociologists were basically at a loss when it came to theory. There was a strong sense that sociologists should develop their own approach, and that this approach should differ from that of mainstream economics—but that was about all. The heritage of economic sociology, especially the powerful ideas of Max Weber on *Wirtschaftssoziologie*, were not an option since they were little known (cf. Swedberg 1998). To draw on Marx's work did not seem much of an option either, since the days of radical sociology were over.

It was in this situation that Mark Granovetter came up with the suggestion that it might be possible to bring together the ideas of Karl Polanyi on embeddedness with those of networks analysis (Granovetter 1985). Following this suggestion, the task of economic sociology would primarily be to trace the way that economic actions are structured via networks. Economic actions, in brief, do not follow the short and direct paths of maximization, as the economists claim, but rather the considerably more complex paths of existing networks. Granovetter also suggested that networks can account for institutions, by conceptualizing the latter as "congealed" networks (Granovetter 1992:9).

This embeddedness project has met with some success; and during the recent decade it has, for example, been used quite a bit as well as added to by Granovetter, his students and some other scholars (e.g. Uzzi 1996, 1997; Portes and Sensenbrenner 1993). During the last ten years this perspective has, however, also been increasingly challenged by a number of economic sociologists; and one may even speak of a general discontent in contemporary economic sociology with the embeddedness perspective, accompanied by an attempt to go beyond it (e.g. Nee and Ingram 1998, Krippner 2001). One of those who have challenged the ideas of Granovetter et al is Pierre Bourdieu, who has criticized the embeddedness approach primarily for its exclusive focus on personal interactions and for its failure to deal with structural factors (e.g. Bourdieu 2000). As a remedy to this, Bourdieu himself has suggested that the concept of field is used, since it allows the analyst to handle macro issues as well as structural effects (e.g. Bourdieu forthcoming).

Several economic sociologists have also been less critical of mainstream economics than what Granovetter is; and these often draw on the work by various members of New Institutional Economics. They stress that Granovetter has difficulty in dealing with the role of institutions in economic life (as opposed to interpersonal networks), and that sociologists have much to contribute to clarifying the relationship between informal and formal elements of institutions (e.g. Nee and Ingram 1998). There also seems to be an affinity between those in favor of the embeddedness approach and a positive attitude to situations characterized by dense interpersonal relations, as opposed to situations where impersonal interactions predominate, as in much of modern capitalism (e.g. Uzzi 1996).

How much economic sociologists should draw on game theory represents another issue that has recently been raised, and for which the embeddedness approach provides little guidance (e.g. Swedberg 2001). Since a few years back the major journals in sociology regularly contain analyses that draw on game theory. Economic sociologists, on the other hand, have basically been suspicious of game theory. At the most they have shown sympathy for attempts to mix empirical analysis with game theory of the type that can be found in the well-known work of Avner Greif (e.g. Greif 1998). All in all, we may conclude that economic sociology is currently characterized by several theoretical approaches, and that a theoretical core is missing.

While sociologists have often been hostile to economics, it has gradually come to be understood that economics is a multifaceted science and that it also contains many ideas that are of relevance to economic sociology. Some economists, on their side, have also come to think that they can improve their own analyses by opening these up to sociological concepts and ways of thinking. The work of Herbert Simon has, for example, continued to be close in spirit to economic sociology (e.g. Simon 1997). This is also true for the work of George Akerlof and Jeffrey Sachs (e.g. Akerlof and Kranston 2000, Sachs 2000). Some economic sociologists have also been attracted by the attempts of Douglass North and Avner Greif to resurrect the concept of institution and improve upon it in the spirit of New Institutional Economics (e.g. Greif forthcoming, North 1990).

New Developments in Analyzing Old Topics (Networks, Markets and Firms)

In Granovetter's article on embeddedness from 1985 it was argued that economic activities were not simply embedded in social relations but in *networks.* Many of Granovetter's students at the State University of New York at Stony Brook in the 1980s would also use network analysis in their studies of the economy. Some of them focused on the kind of networks that develop around firms, while others analyzed the networks that are formed by directors sitting on several boards, so-called interlocks. While big hopes were initially attached to the latter type of study, it was eventually realized that research on interlocks had a rather limited potential (e.g. Mizruchi 1996).

One of the great strengths of networks analysis is that it represents a flexible and sophisticated tool with which a number of social phenomena can be approached, and recent developments in economic sociology tend to confirm this (e.g. Rouch and Casella 2001, Zuckerman 2003). Networks analysis has, for example, been used to explore various types of economic interactions which cannot be categorized either as customs or as some kinds of economic organization. These intermediary social forms are sometimes referred to as "network forms of organization" (e.g. Podolny and Page 1998). In a very influential work from the early 1990s Ronald Burt suggested that also entrepreneurship can be understood with the help of network analysis (Burt 1993). His basic idea is that an entrepreneur connects two groups of people who otherwise would be socially disconnected, say buyers and sellers. The entrepreneur, in his or her capacity as a middleman, straddles according to this argument a so-called "structural hole".

A special mention should also be made of business groups, which are typically studied with the help of networks. Through an article in the early 1990s Mark Granovetter gave great visibility to this topic, and since that time an increasing number of studies have been devoted to this phenomenon (Granovetter 1994; for an overview, see Granovetter forthcoming). One insight produced by this research is that in several countries in Europe, Asia and Latin America, business groups account for a significant part of the economy. In the United States, in contrast, this type of groups is much less common, probably because of anti-trust legislation.

Network analysis has also been used to analyze consumption, a development which can be exemplified by an interesting study by Paul DiMaggio and Hugh Louch (1998). Its focus is on a very special kind of consumer purchases, namely those for which people use their own networks of friends and acquaintances; and these purchases are then contrasted to purchases of the type where the buyer does not need to use a referral or network. Padgett and Ansell have finally carried out a very suggestive historical study with the help of networks analysis (Padgett and Ansell 1993). The famous Medici family, it is argued, held its power partly because of its great skill in building and activating various types of economic and political networks.

A special mention should also be made of a European version of networks theory, called actor-network-theory (ANT; e.g. Callon 1989, Law and Hassard 1999). The basic idea here is that not only individuals and firms can be actors but also objects. What is meant with this paradoxical statement is that the analysis should not exclusively focus on social relations but also include objects; and the rationale for this is that objects may be part of social interactions or steer social interaction in some distinct direction. As examples one can mention the way that, say, surveillance technology enables supervisors to track employees or how an assembly line presupposes that workers coordinate their actions.

Together with networks, *markets* have been one of the central topics in economic sociology from early on. One of the articles that helped to launch economic sociology in the 1980s was devoted to precisely this topic (White 1981). Its author was Harrison C. White, a physicist turned sociologist, and a major figure in 20th century sociology. After leaving the topic of markets for a period in the early 1990s, White resumed work on this topic, adding various features to his earlier model (e.g. White 2001). One of White's followers, it should also be mentioned, has followed up on his ideas about the relationship between market and identity (Aspers 2001).

According to White's theory, the typical (industrial) market has a small number of actors who, by signaling to one another through price and volume, form a coherent group with a stable social structure—in brief, a market. Complementing White's theory is Neil Fligstein's view that the characteristic feature of modern markets is their *stability* (Fligstein 1996, 2001). Market actors, according to this perspective, do not want volatility in price or cutthroat competition, but stable markets without any surprises. Fligstein has also recently analyzed the rise of the shareholder value-conception of the firm, which currently dominates corporate America (Fligstein and Shin 2004; cf. Dobbin and Zorn forthcoming).

Before leaving the topic of markets, a special mention should be made of an elegant study by Joel Podolny on the role of status in markets (Podolny 1992). The argument here is that buyers are willing to pay a premium for status, something which is obviously profitable for the seller. Having status, however, also restricts the seller to a small market, since he or she would otherwise lose status (and the earlier market).

Just like networks and markets have been on the agenda of economic sociology for two decades by now, so have *firms*. One major reason for this is that sociologists since long time back have done work in organization theory and, as part of this, studied firms. There is also the fact that many economic sociologists are employed in business schools, where organization theory is often seen as helpful. One important contribution that sociologists have made to the analysis of firms, and which has grown considerably in importance during the last decade, is that of population ecology (Hannan and Freeman 1988; Hannan and Carroll 1995). The main focus here is on populations of firms in some area of the economy (say railroads, newspapers or breweries), instead of on a single firm or on a few firms. The task then becomes to study how these populations of firms at some point in time come into being, expand, and gradually decline. Another contribution, which has developed forcefully during the last decade, has to do with the diffusion of ideas or various ways of doing things in a population of firms (e.g. Davis 1991). The way that the social relations between the firms are structured, will clearly influence the speed as well as the range of the diffusion.

The main novelty, when it comes to recent sociological research on firms, however, has to do with entrepreneurship. While this topic was occasionally touched on in the 1980s, one could not really speak of a sociology of entrepreneurship—something which is possible today (e.g. Thornton 1999, Swedberg 2000). Mark Granovetter, for example, has helped to explain why people who are not particularly entrepreneurial in their home countries may become successful entrepreneurs once they are in a foreign environment (Granovetter 1995). The secret, Granovetter suggests, is that extended family ties may prevent entrepreneurship in the home country, but will be absent in the new country—with forceful entreprenurship as a result. AnnaLee Saxenian has added to Alfred Marshall's ideas about industrial districts through her study of Silicon Valley (Saxenian 1996). By contrasting the decentralized and informal social structure of Silicon Valley in California to the centralized and formal social structure of Route 128 in Massachusetts, Saxenian has tried to get a handle on the factors that are conducive to entrepreneurship. In his study of village enterprises in China, Yusheng Peng (2004) confirmed empirically a sociological hypothesis on informal privatization which explains property rights as arising from social norms of close-knit entrepreneurial networks.

Some New Topics (Finance, Law, Stratification, Comparative-Historical Studies)

While one may speak of a certain continuity in the study of networks, markets and firms among economic sociologists, even if new and important contributions have been made during the last decade, this is much less the case with the topics that will now be discussed. In *finance*, for example, a number of important developments have taken place during the last decade. Sophisticated analyses of the social mechanisms that operate in this type of markets have begun to appear, as exemplified by the studies of Donald MacKenzie and Ezra Zuckerman (MacKenzie 2003, MacKenzie and Millo 2003, Zuckerman 1999). In a study conducted with Yuval Millo, Donald MacKenzie argues that option markets may have been partly created with the help of economic theory—which is then used to explain the workings of this very market (so-called performativity theory). Ezra Zuckerman analyzes the penalties that firms have to pay that are not tracked by security analysts.

First and foremost, however, economic sociology has brought ethnography and culture to the study of finance, and thereby altered the kind of questions that may be asked and also what kind of material to look for. This way, for example, Viviana Zelizer has discovered that people in their everyday lives do not look on money as some unitary kind of substance, as most social theoreticians do, but rather divide it up into different monies or currencies (e.g. Zelizer 1989). Karin Knorr Cetina and Urs Brügger (2002) have drawn on phenomenology to analyze what it means for people such as brokers, to interact with each other with the help of computers.

Law and economics emerged as a distinct field of inquiry many years before modern economic sociology came into being, and at first attracted little attention among economic sociologists. Slowly, however, it has been realized by economic sociologists that *law* constitutes a central part of the modern economy; and a broad program for how to analyze its role from a sociological perspective has recently been formulated (Swedberg 2003a, 2003b; cf. Edelman and Stryker forthcoming). This program outlines the tasks that an "economic sociology of law" may want to undertake; it also points to a small number of already existing studies that are highly relevant in this context.

One of the most important of these already existing studies has been authored by Lauren Edelman, who is the modern pioneer in introducing a sociological approach to law and economics. She has especially suggested that one should bring together the study of organizations with that of law; and one of her earliest studies that does precisely this, deals with due process in the workplace (Edelman 1990). The same approach can also be found in another study, in which a related subject matter is analyzed, namely the legalization of the workplace (Sutton et al. 1994).

But there is more to the current attempt to develop a sociological approach to law and economics. There exists, for example, an innovative attempt to show how networks analysis may be of help in analyzing the social structure of illegal cartels (Baker and Faulkner 1993). There is also a study that suggests that the privatization process in Eastern Europe may have created a new type of property (Stark 1996).

To claim that the study of *stratification and wealth*, would represent a new topic for economic sociology may seem strange to everybody, except perhaps sociologists. Is it not precisely these two topics that economic sociology is all about, from Marx and Weber to C. Wright Mills and beyond? Questions of inequality, however, are today exclusively handled in sociology in a special subfield called stratification, and not in economic sociology. And wealth, as it turns out, is rarely studied at all in contemporary sociology. Recently, however, stratification experts and economic sociologists have begun to study wealth and also to relate it to the workings of the economy (e.g. Keister and Moller 2000, Spilerman 2000). Another illustration of the attempt to bring together the study of stratification with the workings of the economy, can be found in the work of Victor Nee (1989). Using recent changes in China as his empirical example, Nee argues that when a society goes from redistribution to exchange via the market, this tends to be reflected in its stratification system. This so-called market transition theory has led to a lively debate among sociologists (e.g. Cao and Nee 2000), which has stimulated research by economic sociologists to clarify the state's role in instituting the rise of a market economy and sustaining economic development in transition economies (e.g., Nee 2000; Walder 1995; Peng 2001).

Before concluding this brief overview of recent developments in economic sociology, something also needs to be said about the recent attempt to develop *a historical and comparative economic sociology*. Sociologists have a long and successful tradition of analyzing historical and comparative topics, and it is sometimes argued that these two topics represent areas where economic sociologists have comparative advantages in relation to economists. However that may be, to exemplify this trend a few studies of this type should be mentioned.

Some of these are historical in nature, such as the study by Carruthers and Espeland (1991) of the evolution of accounting and the one by Granovetter and McGuire (1998) of the social construction of the electrical utilities industry in the United States. Others cover different countries and periods, basically arguing that the same economic activities can be organized in different ways, and that there consequently is little support for the argument that there only exists one optimal way of doing things. Marion Fourcade-Gourinchas, for example, makes this point for economic theory itself, by showing how economic theory reflects the social environment of the countries in which it has emerged (Fourcade-Gourinchas 2001). Jens Beckert (forthcoming) traces the evolution of inheritance law in the United States, Germany and France since the 18th century in an exemplary study. Frank Dobbin, finally, suggests that the industrial policy of various countries differ from each other, but also that they are deeply influenced by the way that political power is organized (Dobbin 2001).

2. New Institutionalism in Economic Sociology

After this brief introduction to recent developments in economic sociology, we shall proceed to a discussion of the concept of institution and to the question of how institutions are related to norms and similar social mechanisms. We will not provide an overview of what sociologists have said about institutions during the last century, not only because this would take up far too much space but also because it has already been done a number of times (e.g. DiMaggio and Powell 1991, pp. 1-38, Stinchcombe 1997). We shall instead limit ourselves to the following summary observation. While early sociologists tended to restrict the concept of institution to central and key aspects of society (such as politics, the economy and the family), some sociologists use it in a considerably broader sense. According to the view of so-called new institutionalism in organizational analysis (Powell and DiMaggio 1991), where the role of culture, sense-making and the diffusion models of behavior are emphasized, pretty much anything is viewed as an institution, including a dance and a handshake (e.g. Jepperson 1991). Organizational new institutionalists also tend to downplay the concept of interest and prefer instead to focus on those aspects of institutions that are not related to interests (DiMaggio 1988).

This view of institutions, we argue, tends to take the edge out of the concept of institution, which in our opinion should be restricted to those areas of society where interests come into play in an important and direct manner—such as politics, the economy and the family. The strength of institutions, we also argue, comes precisely from the fact that they channel interests or, to put it differently, present dominant models for how interests can be realized. These models are typically surrounded by a sense of legitimacy or they would not be stable over time. They are also often enforced by law because of their very centrality to society. Institutions have in some cases been consciously designed—say in a constitution—but they may also develop in a gradual and largely unintended manner, along the lines that Hayek suggests (e.g. Hayek 1982). Since institutions regulate areas of society that are of great importance to individuals, they are often contested and reflect struggles in society.

We suggest the following definition:

An institution may be conceptualized as *a dominant system of interrelated informal and formal elements—customs, shared beliefs, norms, and rules—which actors orient their actions to when they pursue their interests*. In this view, institutions are dominant social structures which provide a conduit for social and collective action by facilitating and structuring 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 requires the realignment of interests, norms and power.[1] Institutions that are seen as legitimate or valid are, to repeat, also more enduring than institutions that are directly based on say force. To this may be added that individuals and corporate actors, in pursuing their interests, will want to follow the existing rules or models for how to proceed—or their chances for realizing their interests will diminish dramatically. The existing rules or models for how to proceed constitute elements of two kinds: formal and informal. For example, in their study of high-tech firms in Silicon Valley, Baron and Hannan (forthcoming) examine the effect of the entrepreneur's vision on the organizational form of start-up firms. Formal organizational rules typically reflect the laws and regulations of the institutional environment, say of the type that exists about the status of workers in the in the modern corporation. Informal elements, on the other hand, emerge as soon as things go from the drawing board to reality, influenced by the entrepreneur's vision and the informal norms and culture of the network assembled for the core group of the start up firm. The end result is always a mixture of formal and informal elements which comprise the firm's organizational form, and this original imprint has a long lasting effect on organizational performance. To the extent that formal and informal elements are also seen as legitimate (valid or binding), the corporation will also be able to function without being challenged.

The concept of institutions that we advocate is especially close to that of Douglass North, and we advocate that economic sociology adopt what we term an institutionalist perspective in their analysis (e.g. North 1990). North's distinction between institutions as rules and organizations as players is especially useful to our mind; we also agree with him that institutions are related to incentive structures. We, however, are also of the opinion that one may proceed further than North on a few crucial points. One of these is that the concept of interest should stand at the very center of what we mean by institution; another is that the current literature on institutions makes a much too sharp distinction between actor and structure—to the detriment of our understanding of institutions. We will briefly elaborate on both of these points.

Interests

Interests represent the basic forces that motivate and drive the individual; and they must for this reason also be at the center of the concept of institution.

[1] 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).

Interests can be of different types, say ideal or material.[2] One way of putting interests at the center of the analysis is to conceptualize institutions as dominant models for how interests should be realized. The individual who wants to realize her self-interest will, following this approach, typically orient her actions to the institution; meaning by this that if she wants to realize her interests she will have to follow the general rules or prescriptions for how to behave. As Raymond Boudon (1987) insists, rationality is context-bound insofar as institutions determine the incentive structure. The individual may also chose *not* to follow the institutional model, in which case sanctions will typically occur. Implicit in the choices made by individuals is consideration of costs and benefits entailed in a course of action. By emphasizing the independence of the actor (through the notion of "orienting oneself to rules", rather than simply "following rules"), we proceed in the spirit of methodological individualism.

When one presents the concept of institution as a dominant model for how to realize interests, it is important not to emphasize the element of model to the point that the individual disappears; hence new institutional economic sociology, like economics, focuses on self-interest as motivation for action. The reason for this is that society does not consist of models or rules but of ongoing activities, and similarly there are no institutions per se but only *institutions in action*. This means that ongoing institutions are invested with the power that comes from a number of individuals acting out their patterns of behavior in an effort to realize their interests, and it is precisely *this* that gives institutions their enormous force and importance in society. If institutions are hard to change, it is not only because models of behavior are hard to change because of inertia (an important topic in its own right), but because they are invested with the force that comes from interests-in-action (e.g., Nee forthcoming).

The concept of institution that we are proposing takes two key ideas of economics very seriously: the idea of interest and the idea of methodological individualism; and this is an important reason why we term it a new institutionalist perspective. As sociologists, however, we also want to highlight the role that social relations and norms play in the concept of institutions; and we shall now turn to the challenge of specifying and explicating the social mechanisms that determine 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.

Informal Institutional Elements

It is clear that new institutional economics has forcefully contributed to explaining the emergence and maintenance of formal institutional arrangements that

[2] Economic sociologists and new institutional economists concur in assigning a huge importance to the role of political motives and ideology in social analysis. We differ, however, in that we suggest (with Max Weber) that this type of motives be termed "ideal motives" since they basically operate as driving forces, similar to economic interests. Also religious and altruistic motives qualify as ideal interests according to this terminology.

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 (e.g. North 1991; Williamson 2000). Their questions address the manner in which informal social organization, formal rules and interests *combine* to shape the performance of organizations and economies. With recent advances in application of game theory, economists recently have also begun to incorporate informal institutional elements into their models of economic performance (Greif 2004; 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 channel economic interests and shape economic behavior. Such mechanisms are embedded in networks and norms, the informal institutional elements sociologists have emphasized in their studies of economic life.

While Figure 1 outlines the way institutions are sometimes seen in new institutional economics, Figure 2 provides a schematic representation of the multi-level 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

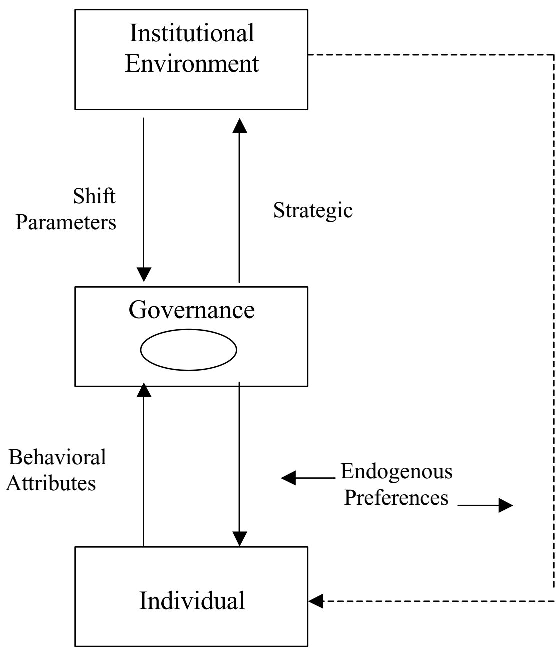

Figure 1. A model of new institutional economics.

Source: Williamson 1994: 80.

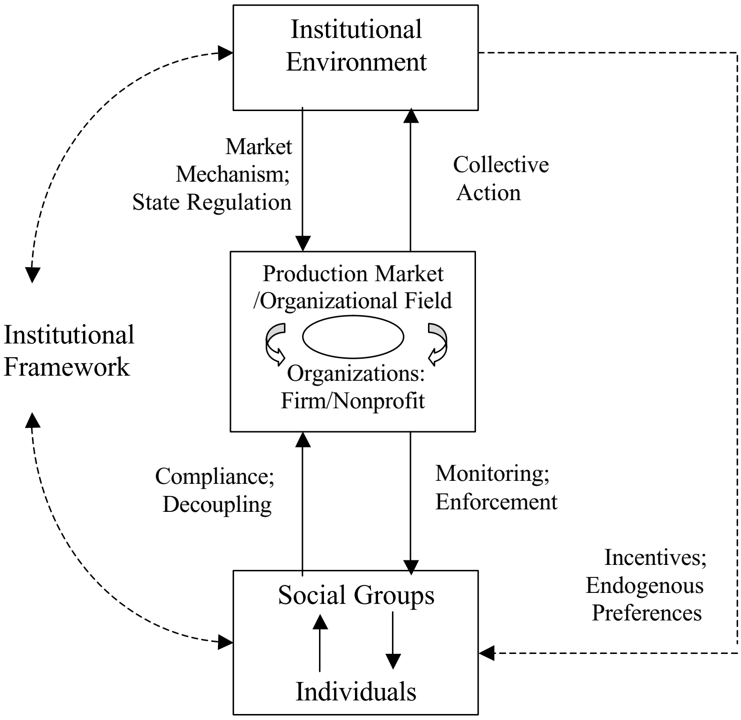

Figure 2. A model for the new institutionalism in economic sociology.

Source: Nee (Forthcoming).

and firms—imposes constraints on firms through market mechanisms and state regulation, thus shaping the incentives structure and the notions of how interests can be realized. The institutional mechanisms operating at this level are distal, as opposed to the proximate social 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 and interests are realized. 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 reinforced 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 don't focus on markets as such, but just assume their existence in the neoclassical view of perfect competition in markets underlying the supply-demand curve. The institutional framework encompasses formal rules of the institutional environment and norms embedded in ongoing social relations, which interact to shape economic behavior. Whether conceived as an organizational field or a production market, sociologists tend to focus on the dynamics of interfirm relations to explain the behavior of individual firms. Paul DiMaggio and Walter Powell (1983) explain the surprising similarity of organizational practices in an organizational field of related firms by reference to the value of legitimacy to the firm's survival and success. Similarly, Harrison White (1981, 2001) models the social structure of so-called production markets as arising from firms competing and maneuvering 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 an essential social capital increasing the chances for optimizing access to scarce resources. For both, legitimacy can be viewed as a condition of fitness which enables for-profit firms and nonprofit organizations to enhance their survival chances and secure advantages in economic and political markets. 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).

The bottom box of this multi-level causal model overlaps with the earlier embeddedness concept, which argue that the *nature* and *structure* of social relationships have more to do with governing economic behavior than do institutional arrangements for realizing interests and related 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 to be found by 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 their interests. 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.[3] Peter Blau's (1955) classic field study of social exchange and networks in a federal bureaucracy, *The Dynamics of Bureaucracy*, confirms the efficacy of social rewards and punishment in facilitating, motivating and governing trustworthy behavior and group performance.[4] In his detailed account of the interactions in the work group he studied made up of a supervisor, sixteen agents and one clerk, Blau provides a rare illustration of *institutions in action*: how self-interested action of individuals endogenously produce the informal social organization of a close-knit work group. In the work group Blau studied, agents consult fellow agents about the appropriate legal rules that apply to their case, rather than bring their questions to the attention of their supervisor who evaluates their work. Blau observed that the informal interactions between agents involve 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 from Homans 1974, p. 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 (Homans 1974). Routine social exchanges, such as the one described by Blau, comprise the informal social organization that emerges and sustains the performance of formal organizations.

Norms are the informal rules that facilitate, motivate and govern joint action of members of close-knit groups, including attempts to realize their interests. They arise from the problem-solving activity of individuals as rule-of-thumb guidelines of expected behavior; and they are typically maintained through some sanction such as disapproval. Throughout history, norms have coordinated group action to improve the chances for success—the attainment of rewards and the realization of interests—through cooperation. As statements of shared beliefs about expected behavior, norms probably evolved together with language, as in the norms uttered by early hunting parties to coordinate action during the

[3] 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 (Homans 1974; Nee and Ingram 1998; Emerson 1962; Blau 1964).

[4] 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).

course of the expedition. Norms presumably evolved through trial and error, with success the arbiter of why a particular norm persists in equilibrium across generations and diffuses to different groups.[5] Members of close-knit groups cooperate in enforcing norms not only because 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 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*" (Ellickson 1991:167). 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 important is that this type of dilemma is such a common feature of social and economic life. It is also the prisoner's dilemma aspects of human interaction that give rise to opportunism in contractual agreements and in ongoing social relationships. To some degree, all social exchange resembles the prisoner 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 1986:11-5).

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.

[5] 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.

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.[6]

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 so-called *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 slow-down or non-compliance, 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 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 to a decoupling through opposition norms*.

In new institutionalist economic sociology purposive action by corporate actors and individuals (usually in close-knit networks) cannot be understood apart from the institutional framework within which interests have to be realized. For example, 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 of the state emphasizes, the state is the sovereign actor specifying the framework of rules that govern competition and cooperation in a society. It 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

Laws, like norms, are statements of expected behavior, backed by state power. Or, in Weber's formulation: when rules of expected behavior are enforced through

[6] However, close coupling between informal and formal rules does not necessarily give rise to success. Indeed, population 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).

the coercive actions by a specially created staff of people, we have a law (Weber 1978:34). Whether laws are seen as based on as ideology or cultural beliefs, they define the parameters of legitimate behavior to which organizations and individuals have to adapt and orient their actions. In keeping with their disciplinary traditions, economists emphasize the costs of opposing the coercive forces of the state, and organizational sociologists emphasize the value of legitimacy gained through recurrent 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 in the sense that 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 the Civil Rights era and its institutional changes decisively opened U.S. 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 (e.g. 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 era 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 resources through the appearance of abiding by civil rights legislation. However, "once in place, EEO/AA structures may produce or bolster internal constituencies that help to institutionalize EEO/AA goals" (Edelman 1992:1569). The civil rights era 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)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 anti-discriminatory 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 causal model in Figure 2, suggesting that mechanisms of isomorphism align with the structure of incentives stemming from formal rules of the institutional environment.

3. Some Illustrative Studies in New Institutional Economic Sociology

The causal model in new institutionalist economic sociology integrates a micro-foundation based on an account of the rational pursuit of interests as context-bound, 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 multi-level causal model therefore moves well beyond the earlier embeddedness perspective towards a social relations *and* institutions-approach that can better explain the emergence, persistence and transformation of economic institutions and behavior. As a conceptual framework, the new institutionalism in economic sociology also offers an open architecture for generating theories at the middle range, extending in this manner 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 multi-level causal model, in order to explain how informal social organizations interact with large institutional structures. Here are two illustrations of such use of a multi-level causal model.

Example # 1: A Weberian Model of Economic Growth

Evans and Rauch (1999) specify a multi-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 development 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 era 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 the government's ability to monitor and enforce rules oriented to the promotion of 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

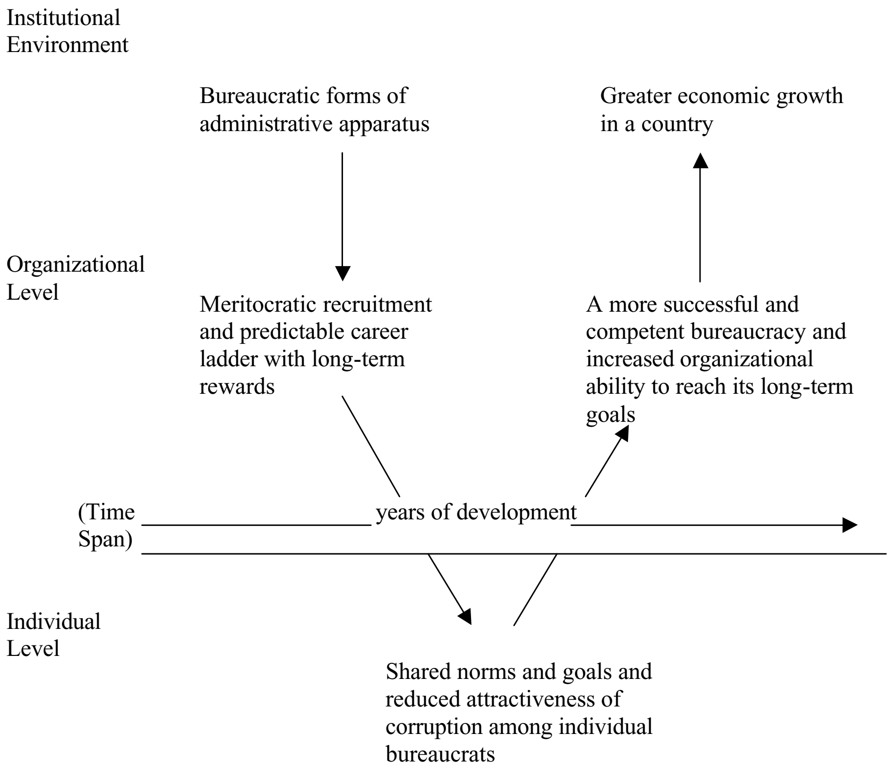

Figure 3. Evans and Rauch's model on the effects of Weberian state structure on economic growth.

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.

Example # 2: A Dynamic Game Theoretic Model of De-institutionalization

A multi-level causal model provides analytic leverage for the understanding of the emergence of market economies in post-socialist 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—i.e., constitution, civil law and other regulations—instituted by administrative fiat would succeed in establishing a modern capitalist economy (e.g. Sachs 1995). Such efforts at capitalism by fiat change in the rules of the game overlooked the realities of power and interests vested in the ruins of communism.[7]

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, as 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.[8] 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.[9] 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 the de-institutionalization 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 de-institutionalization

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

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

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

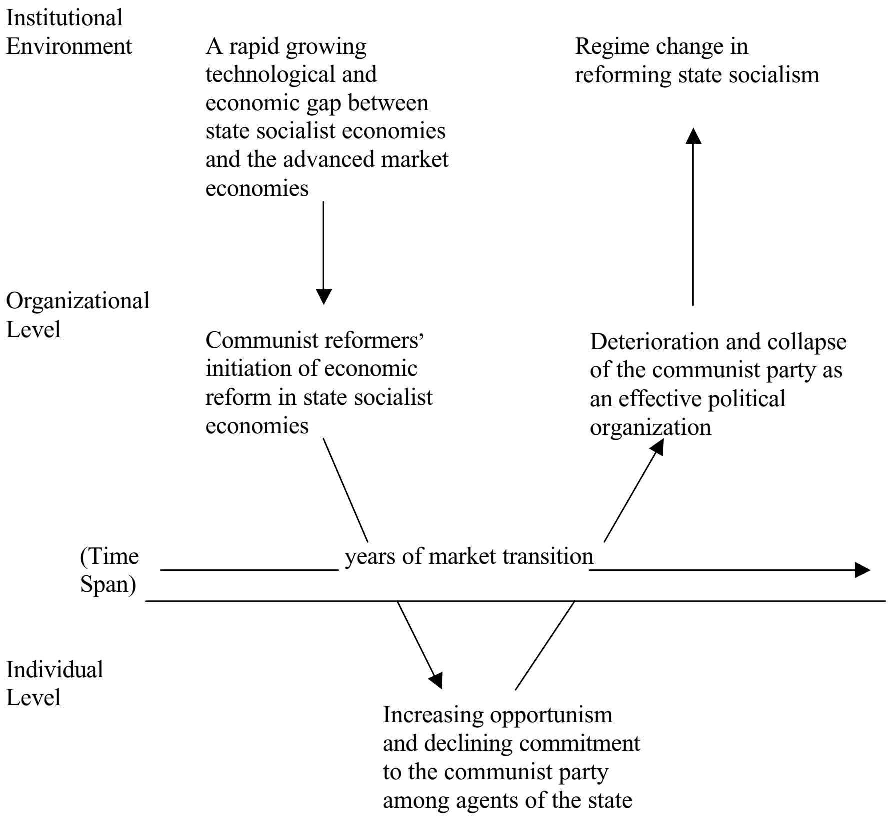

Figure 4. Nee and Lian's dynamic model of declining political commitment in state socialism.

of the party and far-reaching change in political institutions, including political revolution, in reforming state socialism. This 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 polities in Eastern Europe and the 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 and a greater reliance on bureaucrats rather than politicians in state-crafted institutional change oriented to building a market economy.

4. Concluding Remarks

By way of concluding we would first of all like to note that the sociological analysis of the nature of the relationships between networks, norms and large institutional structures in economic life is still 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, game theory and computer simulation of the emergence, diffusion and transformation of norms and beliefs can all contribute to a deepened understanding of the micro-macro links. These methods can also contribute to a better understanding of the joint stabilizing impact of customs, conventions, norms, beliefs and interests.

Central to the research agenda of the new institutionalist approach that we are advocating 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 cases. While such work has led to some important 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 is indispensable in the attempt to 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, for example, 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 way that is useful for empirical analysis.[10] 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.[11] Economic sociologists can also 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

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

[11] 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.

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 this idea in a productive manner 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 also 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 very stability of informal institutional elements—customs, networks, norms, cultural beliefs—that together with a distinct constellation of interestsaccount for path dependence in institutional arrangements.

There is also the important issue that Douglass North in his recent work has drawn our attention to in a forceful manner, namely that shared mental models play an important but neglected role in economic life. His main sources of inspiration in this enterprise have been recent advances in cognitive science and Hayek's *Sensory Order* (e.g. Denzau and North 1994, Hayek 1952). To these sources we would like to add the century long attempt of Weberian-style sociology to introduce the perspective of the individual actor into the analysis in a stringent manner, which is known as "interpretive sociology" (Weber 1978; for an elaboration, see e.g. Schutz 1967). Weber was active long before the birth of modern cognitive science, but we would nonetheless argue that some of his ideas on this topic are still relevant. For a quick illustration we refer the reader toWeber's well-known argument about the way that the mental models of religion may channel and direct economic actions in various ways. In Weber's famous formulation:

> Not ideas, but material and ideal interests, directly govern men's conduct. Yet very frequently the 'world images' [of religion] that have been created by 'ideas' have, like switchmen, determined the tracks along which action has been pushed by the dynamic of interest. (Weber 1946:280)

Finally, just as economists may find it useful to incorporate the idea of networks into their models of the economy, so economic sociology can benefit from integrating economic ideas that are complementary to the modern sociological approach. Economic exchange, for example, can be seen as a specialized form of social exchange (Homans 1974:68); hence the mechanisms facilitating, motivating and governing social processes also extend to economic behavior. Cross-disciplinary trade with economics has been immensely 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, signaling and path dependence. New institutional economic sociology, we are convinced, 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.

ACKNOWLEDGEMENT

We want to thank Claude Ménard both for his patience and for his inspiration to write this chapter. We draw on some of the material in Nee (forthcoming) and Swedberg (forthcoming), but also add to our joint theoretical argument about institutions and norms.

REFERENCES

Akerlof, George and Rachel Kranton. 2000. "Economics of Identity". *Quarterly Journal of Economics* 15: 715–753.

Alba, Richard, and Victor Nee. 2003. *Remaking the American Mainstream: Assimilation and Contemporary Immigration.* Cambridge, MA: Harvard University Press.

Arthur, Brian W. 1988. "Self-Reinforcing Mechanisms in Economics" in P.W. Anderson and Kenneth J. Arrow (eds.), *The Economy as an Evolving Complex System*. Menlo Park, CA: Assison-Wesley, pp. 9–32.

Aslund, Anders. 1995. *How Russia Became a Market Economy.* Washington, DC: The Brookings Institution.

Aspers, Patrik. 2001. "A Market in Vogue: Fashion Photography in Sweden". *European Societies* 3(1): 1–22.

Aspers, Patrik. Forthcoming. *A Market in Vogue: A Study of Fashion Photography in Sweden.* London: Routledge.

Baker, Wayne and Robert Faulkner. 1993. "The Social Organization of Conspiracy: Illegal Networks in the Heavy Electrical Industry". *American Sociological Review* 58: 837–860.

Baron, James N. and Michael T. Hannan. Forthcoming. "The Economic Sociology of Organizational Entrepreneurship: Lessons from the Stanford Project on Emerging Companies" in Victor Nee and Richard Swedberg (eds.), *The Economic Sociology of Capitalism*. Princeton, NJ: Princeton University Press.

Beissinger, Mark R. 2002. *Nationalist Mobilization and the Collapse of the Soviet State.* Cambridge: Cambridge University Press.

Blau, Peter. 1955. *The Dynamics of Bureaucracy*, 2nd edn. Chicago, IL: University of Chicago Press.

Blau, Peter. 1964. *Exchange and Power in Social Life*. New York: Wiley.

Bott, Elizabeth. 1957. *Family and Social Network*. London: Tavistock Publications.

Bourdieu, Pierre. 2000. *Les Structures Sociales de l'Economie*. Paris: Seuil.

Brinton, Mary C. and Victor Nee (eds.). 1998. *The New Institutionalism in Sociology.* New York: Russell Sage Foundation.

Burt, Ronald. 1993. "The Social Structure of Competition" in Richard Swedberg (ed.), *Explorations in Economic Sociology*. New York: Russell Sage Foundation, pp. 65–103.

Cao, Yang and Victor Nee. 2000. "Comment: Controversies and Evidence in the Market Transition Debate". *American Journal of Sociology* 105(2000): 1175–1189.

Cao, Yang. 2001. "Careers inside Organizations: A Comparative Analysis of Promotion Determination in Reforming China". *Social Forces* 80: 683–712.

Carruthers, Bruce and Wendy Nelson Espeland. 1991. "Accounting for Rationality: Double-Entry Bookkeeping and the Rhetoric of Economic Rationality". *American Journal of Sociology* 97: 31–69.
Cook, Karen S., Richard M. Emerson, Mary R. Gillmore, and Toshio Yamagishi. 1983. "The Distribution of Power in Exchange Networks: Theory and Experimental Results". *American Journal of Sociology* 89: 275–305.
David, Paul. 1986. "Understanding the Economics of QWERTY: The Necessity of History" in W. Parker (ed.), *Economic History and the Modern Historian*. London: Blackwell, pp. 30–49.
Davis, Gerald. 1991. "Agents without Principles? The Spread of the Poison Pill through the Intercorporate Network". *Administrative Science Quarterly* 36: 583–613.
Denzau, Arthur and Douglass North. 1994. "Shared Mental Models: ideologies and Institutions". *Kyklos* 47: 3–31.
DiMaggio, Paul and Hugh Louch. 1998. "Socially Embedded Consumer Transactions: For What Kind of Purchases Do People Most Often Use Networks?". *American Sociological Review* 63: 619–637.
DiMaggio, Paul J. and Walter Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields". *American Sociological Review* 48: 147–160.
DiMaggio, Paul J. and Walter Powell. 1991. "Introduction" in Walter Powell and Paul DiMaggio (eds.), *The New Institutionalism in Organizational Analysis*. Chicago, IL: University of Chicago Press, pp. 1–38.
DiMaggio, Paul. 1988. "Interest and Agency in Institutional Theory" in Lynn Zucker (ed.), *Institutional Patterns and Organizations*. Cambridge: Ballinger Publishing Company, pp. 3–21.
Dobbin, Frank and Dirk Zorn. Forthcoming. "The Rise of the Financial Officer in U.S. Corporations". *Social Forces*.
Dobbin, Frank. 2001. "Why the Economy Reflects the Polity: Early Rail Policy in Britain, France, and the United States" in Mark Granovetter and Richard Swedberg (eds.), *The Sociology of Economic Life*, 2nd edn. Boulder, CO: Westview, pp. 401–424.
Edelman, Lauren and Robin Stryker. Forthcoming. "Law and the Economy" in Neil Smelser and Richard Swedberg (eds.), *The Handbook of Economic Sociology*. 2nd rev. edn. New York and Princeton: Russell Sage Foundation and Princeton University Press.
Edelman, Lauren B., Christopher Uggen, and Howard S. Erlanger. 1999. "The Endogeneity of Legal Regulation: Grievance Procedures as Rational Myth". *American Journal of Sociology* 105: 406–454.
Edelman, Lauren. 1990. "Legal Environments and Organizational Governance: The Expansion of Due Process in the American Workplace", *American Journal of Sociology* 95: 1401–1440.
Edelman, Lauren. 1992. "Legal Ambiguity and Symbolic Structures: Organizational Mediation of Civil Rights Law". *American Journal of Sociology* 97: 1531–1576.
Ellickson, Robert. 1991. *Order without Law*. Cambridge, MA: Harvard University Press.
Emerson, Richard. 1962. "Power-Dependence Relations." *American Sociological Review* 22: 31–41.
Evans, Peter and James E. Rauch. 1999. "Bureaucracy and Growth: A Cross-National Analysis of the Effects of 'Weberian' State Structures on Economic Growth". *American Sociological Review* 64: 748–765.
Festinger, Leon; Schachter, Stanley; and Back, Kurt. 1950. *Social Pressures in Informal Groups.* New York: Harper.
Fligstein, Neil and Taekjin Shin. 2004. "Shareholder Value and the Transformation of the American Economy: 1984–2001". Center for the Study of Economy and Society, Cornell University, Working Paper Series # 19.

Fligstein, Neil. 1996. "Markets as Politics: A Political-Cultural Approach to Markets". *American Sociological Review* 61: 656–673.

Fligstein, Neil. 2001. *The Architecture of Markets: An Economic Sociology of 21*st *Century Capitalist Societies.* Princeton, NJ: Princeton University Press.

Fourcade-Gourinchas, Marion. 2001. "Politics, Institutional Structures, and the Rise of Economics: A Comparative Study". *Theory and Society* 30: 397–447.

Granovetter, Mark. 1985. "Economic Action and Social Structure: The Problem of Embeddedness". *American Journal of Sociology* 91: 481–510.

Granovetter, Mark. 1992. "Economic Institutions as Social Constructions: A Framework for Analysis". *Acta Sociologica* 35: 3–11.

Granovetter, Mark. 1994. "Business Groups" in Neil Smelser and Richard Swedberg (eds.), *The Handbook of Economic Sociology*. New York and Princeton: Russell Sage Foundation and Princeton University Press, pp. 453–475.

Granovetter, Mark. 1995. "The Economic Sociology of Firms and Entrepreneurs" in Alejandro Portes (ed.), *The Economic Sociology of Immigration*. New York: Russell Sage Foundation, pp. 128–165.

Granovetter, Mark. Forthcoming. "Business Groups and Social Organization" in Neil Smelser and Richard Swedberg (eds.), *The Handbook of Economic Sociology*, 2nd rev. edn. New York and Princeton: Russell Sage Foundation and Princeton University Press.

Gray, Cheryl W. and Kathryn Hendley. 1997. "Developing Commercial Law in Transition Economies: Examples from Hungary and Russia" in Jeffrey Sachs and Katharina Pistor (eds.), *The Rule of Law and Economic Reform in Russis,* Cambridge, MA: Westview, pp. 139–164.

Greif, Avner. [1994] 1998. "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies". *Journal of Political Economy* 102: 912–50; adapted for *The New Institutionalism in Sociology*, edited by Mary Brinton and Victor Nee, New York: Russell Sage Foundation.

Greif, Avner. 1998. "Self-Enforcing Political Systems and Economic Growth: Late Medieval Genoa" in Robert Bates et al., *Analytical Narratives*. Princeton, NJ: Princeton University Press, pp. 23–63.

Greif, Avner. Forthcoming. *Institutions and History*. Cambridge: Cambridge University Press.

Guthrie, Doug. 1999. *Dragon in a Three-Piece Suit: The Emergence of Capitalism in China.* Princeton, NJ: Princeton University Press.

Hamilton, Gary D. and Robert Feenstra. 1998. "The Organization of Economies" in Mary Brinton and Victor Nee (eds.), *The New Institutionalism in Sociology*. New York: Russell Sage Foundation, pp. 153–180.

Hannan, Michael and Glenn Carroll. 1995. "An Introduction to Organizational Ecology" in Glenn Carroll and Michael Hannan (eds.), *Organizations in Industry.* New York: Oxford University Press, pp. 17–31.

Hannan, Michael T., and John Freeman. 1989. *Organizational Ecology*. Cambridge, MA: Harvard University Press.

Hardin, Russell. 1988. *Morality within the Limits of Reason.* Chicago, IL: University of Chicago Press.

Hayek, Friedrich. 1952. *The Sensory Order*. London: Routledge.

Hayek, Friedrich. 1982. *Law, Legislation and Liberty*. London: Routledge.

Hellman, Joel S. 1997. "Constitutions and Economic Reform in the Post-Communist Transitions" in Jeffrey Sachs and Katharina Pistor (eds.), *The Rule of Law and Economic Reform in Russisa.* Cambridge, MA: Westview, pp. 55–78.

Homans, George C. 1974. *Social Behavior: Its Elementary Forms*. New York: Harcourt Brace Jovanovich.

Jenning, Helen Hall. 1950. *Leadership and Isolation*, 2nd edn. New York: Longmans, Green.

Jepperson, Ronald. 1991. “Institutions, Institutional Effects, and Institutionalism” in Walter Powell and Paul DiMaggio (eds.), *The New Institutionalism in Organizational Analysis*. Chicago, IL: University of Chicago Press, pp. 143–163.

Keister, Lisa and Stephanie Moller. 2000. “Wealth Inequality in the United States”. *Annual Review of Sociology* 26: 63–81.

Keister, Lisa. 2000. *Chinese Business Groups: The Structure and Impact of Interfirm Relations during Economic Development*. New York: Oxford University Press.

Knorr Cetina, Karin and Urs Brügger. 2002. ”Global Macro Structures: The Virtual Societies of Financial Markets”. *American Journal of Sociology* 107: 905–950.

Kollock, Peter. 1994. “The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment, and Trust”. *American Journal of Sociology* 100: 315–345.

Krippner, Greta. 2001. “The Elusive Market: Embeddedness and the Paradigm of Economic Sociology”. *Theory and Society* 30: 775–810.

Lawler, Edward J. and Jeongkoo Yoon. 1995. “Commitment in Exchange Relations: Test of a Theory of Relational Cohesion”. *American Sociological Review* 61: 89–108.

MacKenzie, Donald and Yuval Millo. 2003. “Constructing a Market, Performing a Theory: The Historical Sociology of a Financial Derivatives Exchange”. *American Journal of Sociology* 109: 107–146.

MacKenzie, Donald. 2003. “Long-Term Capital Management and the Sociology of Arbitrage”. *Economy and Society* 32(3): 349–380.

Mizruchi, Mark. 1996. “What Do Interlocks Do? An Analysis, Critique and Assessment of Research on Interlocking Directorates”. *Annual Review of Sociology* 22: 271–298.

Naughton, Barry. 1995. *Growing out of the Plan: Chinese Economic Reform 1978–1993*. Cambridge: University of Cambridge Press.

Nee, Victor. 1989. “A Theory of Market Transition: From Redistribution to Markets in State Socialism”. *American Sociological Review* 54: 663–81.

———. 1996. “The Emergence of a Market Society: Changing Mechanisms of Stratification in China”. *American Journal of Sociology* 101: 908–949.

———. 2000. “The Role of the State in Making a Market Economy”. *Journal of Institutional and Theoretical Economics* 156: 64–88.

———. Forthcoming. “The New Institutionalism in Economics and Sociology” in Neil Smelser and Richard Swedberg (eds.), *The Handbook of Economic Sociology*, 2nd edn. Princeton, NJ: Princeton University Press and Russell Sage Foundation.

———. Forthcoming. “The Organizational Dynamics of Institutional Change” in Victor Nee and Richard Swedberg (eds.), *The Economic Sociology of Capitalism*. Princeton, NJ: Princeton University Press.

Nee, Victor and Paul Ingram. 1998. “Embeddedness and Beyond: Institutions, Exchange, and Social Structure” in Mary Brinton and Victor Nee (eds.), *The New Institutionalism in Sociology*. New York: Russell Sage Foundation, pp. 19–45.

Nee, Victor and Peng Lian. 1994. ”Sleeping with the Enemy: A Dynamic Model of Declining Political Commitment in State Socialism”. *Theory and Society* 23: 253–296.

Nee, Victor and Yang Cao. 1999. “Path Dependent Societal Transformations”. *Theory and Society* 28: 799–834.

Nelson, Richard and Sidney Winter. 1982. *An Evolutionary Theory of Economic Change.* Cambridge: Cambridge University Press.

North, Douglass C. 1981. *Structure and Change in Economic History.* New York: Norton.

North, Douglass C. and John J. Wallis. 1986. “Measuring the Transaction Sector in the American Economy, 1870–1970” in Staley L. Engerman and Robert E. Gallman (eds.), *Long-Term Factors in American Economic Growth*, vol. 51 of *The Income and Wealth Series*. Chicago IL: University of Chicago Press, pp. 95–148.

North, Douglass. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

North, Douglass. 1991. “Institutions”. *Journal of Economic Perspectives* 5: 97–112.

North, Douglass. 1993. "Institutions and Credible Commitment". *Journal of Institutional and Theoretical Economics* 149: 11–23.
Opper, Sonja, Sonia M.L. Wong, and Ruyin Hu. 2002. "Party Power, Market, and Private Power: Chinese Communist Party Persistence in China's Listed Companies" in K. Leicht (eds.), *The Future of Market Transition*. *Research in Social Stratification and Mobility* 19 Special Issue: 105–138.
Padgett, John and Christopher Ansell. 1993. "Robust Action and the Rise of the Medici, 1400–1434". *American Journal of Sociology* 98: 1259–1319.
Peng, Yusheng. 2001. "Chinese Townships and Villages as Industrial Corporations: Ownership, Governance, and Productivity". *American Journal of Sociology* 106: 1338–1370.
———. 2004. "Kinship Networks and Entrepreneurs in China's Transitional Economy". *American Journal of Sociology* 109: 1045–1074.
Petersen, Trond. 1992. "Individual, Collective, and Systems Rationality in Work Groups". *Rationality and Society* 4: 332–355.
Podolny, Joel and Karen Page. 1998. "Network Forms of Organization". *Annual Review of Sociology* 24: 57–76.
Podolny, Joel. 1992. "A Status-Based Model of Market Competition". *American Journal of Sociology* 98: 829–72.
Portes, Alejandro and Sensenbrenner, J. 1993. "Embeddedness and Immigration: Notes on the Saocial determinants of Economic Action". *American Journal of Sociology* 98: 1320–1350.
Posner, Richard A. 1986. *Economic Analysis of Law.* Boston, MA: Little Brown and Co.
Rauch, James and Alessandra Casella (eds.). 2001. *Networks and Markets*. New York: Russell Sage Foundation.
Riley, M.W. and R. Cohn. 1958. "Control Networks in Informal Groups". *Sociometry* 21: 30–49.
Roethlisberger, F.J. and W.J. Dickson. 1939. *Management and the Worker.* Cambridge, MA: Harvard University Press.
Rona-Tas, Akos and Alya Guseva. 2001. "Uncertainty, Risk, and Trust: Russian and American Credit Markets Compared". *American Sociological Review* 66: 623–646.
Sachs, Jeffrey D. 1995. "Consolidating Capitalism". *Foreign Policy*, Number 98, Spring.
Sachs, Jeffrey. 2000. "Notes on a New Sociology of Economic Development" in Lawrence Harrison and Samuel Huntington (eds.), *Culture Matters.* New York: Basic Books, pp. 29–43.
Saxenian, AnnaLee. 1996. "Silicon Valley: Competition and Community" in *Regional Competition: Culture and Competition in Silicon Valley and Route 128*. Cambridge, MA: Harvard University Press, pp. 29–57.
Schachter, Stanley, N. Ellertson, D. McBride, and D. Gregory. 1951. "An Experimental Study of Cohesiveness and Productivity". *Human Relations* 4: 229–238.
Schutz, Alfred. 1967. *The Phenomenology of the Social World*. Chicago, IL: Northwestern University Press.
Seashore, Stanley E. 1954. *Group Cohesiveness in the Industrial Work Group*. Ann Arbor, MI: Institute for Social Resaerch, University of Michigan.
Shibutani, Tomatsu. 1978. *The Derelicts of Company K: A Study of Demoralization*. Berkeley, CA: University of California Press.
Shirk, Susan L. 1993. *The Political Logic of Economic Reform in China.* Berkeley, CA: University of California Press.
Shleifer, Andrei and Robert W. Vishny. 1994. "Politicians and Firms". *The Quarterly Journal of Economics* 109: 995–1025.
Simon, Herbert. 1997. "The Role of Organizations in an Economy" in Herbert Simon (ed.), *An Empirically Based Microeconomics*. Cambridge, MA: Cambridge University Press, pp. 33–53.
Spilerman, Seymour. 2000. "Wealth and Stratification Processes". *Annual Review of Sociology* 26: 497–524.

Stark, David. 1996. “Recombinant Property in Eastern European Capitalism”. *American Journal of Sociology* 101: 993–1027.
Stiglitz, Joseph E. 1989. *The Economic Role of the State*. Oxford: Basil Blackwell.
Stinchcombe, Arthur. 1997. “On the Virtues of the Old Institutionalism”. *Annual Review of Sociology* 23: 1–18.
Sutton, John, Frank Dobbin, John Meyer, and Richard Scott. 1994. “The Legalization of the Workplace”. *American Journal of Sociology* 99: 944–971.
Swedberg, Richard (ed.). 1996. *Economic Sociology*. Cheltenham, UK: Edward Elgar.
Swedberg, Richard (ed.). 2000. *Entrepreneurship: The Social Science View*. Oxford: Oxford University Press.
Swedberg, Richard. 2001. “Sociology and Game Theory: Contemporary and Historical Perspectives”. *Theory and Society* 30(3): 301–335.
Swedberg, Richard. 2003a. “The Case for an Economic Sociology of Law”. *Theory and Society* 32(1): 1–37.
Swedberg, Richard. 2003b. *Principles of Economic Sociology*. Princeton, NJ: Princeton University Press.
Swedberg, Richard. Forthcoming. “Introduction” in Richard Swedberg (ed.), *New Developments in Economic Sociology*. 2 vols. Cheltenham, UK: Edward Elgar.
Thornton, Patricia. 1999. “The Sociology of Entrepreneurship”. *Annual Review of Sociology* 25: 19–46.
Uzzi, Brian. 1996. “The Sources and Consequences of Embeddedness for the Economic Perfomance of Organizations: The Network Effect”. *American Sociological Review* 61: 674–698.
Uzzi, Brian. 1997. “Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness”. *Administrative Science Quarterly* 42: 35–67.
Varese, Fedrico. 2001. *The Russian Mafia: Private Protection in a New Market Economy*. London: Oxford University Press.
Walder, Andrew G. 1995. “Local Government as Industrial Firms: An Organizational Analysis of China’s Transitional Economy”. *American Journal of Sociology* 101: 263–301.
Walker, Edward L. and Roger W. Heyns. 1962. *An Anatomy for Conformity.* Englewood Cliffs, NJ: Prentice-Hall.
Weber, Max. 1946. In Hans Gerth and C. Wright Mills (eds.), *from Max Weber*. New York: Oxford University Press.
Weber, Max. 1978. In Guenther Roth and Claus Wittich (eds.), *Economy and Society: An Outline of Interpretive Sociology.* Berkeley, CA: University of California Press.
White, Harrison. 1981. ”Where Do Markets Come From?”. *American Journal of Sociology* 87: 517–547.
White, Harrison. 1992. *Identity and Control: A Structural Theory of Social Action.* Princeton, NJ: Princeton University Press.
White, Harrison. 2001. *Markets from Networks: Socioeconomic Models of Production*. Princeton, NJ: Princeton University Press.
Whyte, William Foote. 1943. *Street Corner Society.* Chicago, IL: University of Chicago Press.
Williamson, Oliver E. 1994. “Transaction Cost Economics and Organization Theory” in Neil Smelser and Richard Swedberg (eds.), *The Handbook of Economic Sociology*. New York: Russell Sage Foundation, pp. 77–107.
Williamson, Oliver E. 2000. “The New Institutional Economics: Taking Stock, Looking Ahead”. *Journal of Economic Literature* XXXVIII: 595–613.
Zelizer, Viviana. 1989. “The Social Meaning of Money: ‘Special Monies”’. *American Journal of Sociology* 95: 342–377.
Zelizer, Viviana. 2002. “Intimate Transactions” in Mauro Guillen et al. (eds.), *The New Economic Sociology*. New York: Russell Sage Foundation, pp. 101–125.
Zuckerman, Ezra. 1999. “The Categorical Imperative: Securities Analysts and the Illegitimacy Discount”. *American Journal of Sociology* 104: 1398–1438.