3 New Institutional Economics

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3.1 Introduction

This chapter explores similarities, contrasts, and connections between the Bloomington School of Institutional Analysis established by Vincent and Elinor Ostrom and New Institutional Economics (NIE). Although NIE was not included among the three "schools" or research traditions Mitchell (1988) identified as closely related but distinct approaches to the study of political economy active at that time, New Institutional Economics can also claim a common origin in the mid-20th Century public choice movement, in which scholars from various disciplines brought concepts and methods from economics to bear on explicitly political subjects (Mitchell 1999, Aligica and Boettke 2009). As shown in this chapter, these two traditions of research have since gone in quite different directions.

In a nutshell, NIE and the Bloomington School offer complementary perspectives on the origins and sustainability of institutions, political economy, and social order. NIE sees the institutional order as primarily constituted in a network of organizations, and focuses on the principal-agent problem within formal organizations as the key difficulty in building a stable social order. By contrast, the Bloomington School sees the institutional order as a network of action arenas in which political, economic, and social actors work together to realize shared interests while acknowledging that each will nonetheless continue to also pursue self-interested goals. For those working in the Bloomington tradition, the key problem becomes reducing the frequency of free-riding or other behaviors that undermine trust within and across social groups.

This chapter examines a series of similarities and differences between NIE and the Bloomington School in their understanding of basic concepts and their tendency to rely on different, but related, methods of analysis. After this introduction, Section 3.2 highlights their shared foundations in the basic tenets of methodological individualism and bounded rationality. Section 3.3 details how scholars working in these traditions interpret core concepts of institutions, organizations, and property rights in subtly different ways. Section 3.4 shows how these differences underlie more dramatic contrasts in their approach to broader issues of social order. Section 3.5 concludes by suggesting ways scholars from these two research traditions might combine their respective strengths to improve our collective understanding of important aspects of political, economic, and social order.

3.2 A Shared Foundation: Methodological Individualism and Bounded Rationality

Oliver Williamson (1975: 1) first coined the term New Institutional Economics (NIE), which eventually broadened to incorporate a wide range of related areas of research on political economy (Eggertsson 1990, Furubotn and Richter 2005, Ménard and Shirley 2008, Galiani and Sened 2014). The advanced NIE text by Furubotn and Richter (2005: 35-40) identifies the core topics of NIE as transaction costs, property rights, and the economic theory of contracts. In this chapter, I use the term NIE to also encompass two research areas that Furubotn and Richter (2005) designate as New Institutional Economic History and Historical and Comparative Institutional Analysis.

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Researchers working in the first of these areas use simple economic models to understand the institutional structure of a political-economic system as a whole, and those in the second area focus on how different configurations of small-scale institutional arrangements can support the persistence of diverse macro-levels patterns of strategic interactions between powerful political and economic actors. In short, NIE covers an impressive range of core topics in political economy, ranging all the way from the contractual basis of individual firms to the historical development of fundamentally different structures of social order.

Douglass North and Oliver Williamson are the two scholars most closely associated with New Institutional Economics. Each has received a Nobel Memorial Prize in Economic Sciences, North in 1993 (North 1994) and Williamson in 2009 (Williamson 2010). Williamson's award was shared with Elinor Ostrom (2010), but the Nobel committee did not identify Williamson and Ostrom as belonging to a single school of research, beyond recognizing their contributions to the study of economic governance, specifically the commons (Ostrom) and the structure of the firm (Williamson). Critically important contributions from two other Nobelists, Ronald Coase and Herbert Simon, are also discussed below.

Scholars in both New Institutional Economics and the Bloomington School stand united in opposition to the general presumption in neoclassical economic theory that rational actors can accurately and dispassionately weigh the potential benefits and costs of each option available to them in real-life decision situations. Proponents of both research traditions give prominence to a core contribution from Herbert Simon, the first political science Ph.D. awarded a Nobel Memorial Prize in Economic Sciences (Simon 1979). Throughout his long career, Simon forcefully argued that human choice is subject to constraints inherent in the nature of human cognition, the organizational structures within which we act, and the effects of emotion and normative values on decision-making.

Simon (1955) postulated that the sequence by which options are considered can be critical. He argued that individuals rarely hold out for finding the optimal solution, but instead follow a decision process he called "satisficing," that is, set an aspirational level, start examining options, and then pick the first option likely to reap net benefits exceeding that threshold. If that process is as ubiquitous as Simon postulated, then to understand the decisions made by individual leaders, analysts need to become familiar with the institutional procedures that determine the sequence of consideration, the source of each agent's aspiration level, and the intensity of time pressure felt by that actor.

Simon's model of human cognition implied that humans are boundedly rational information processors capable of only relatively simple decisional tasks, but if those same actors are placed within appropriate institutional settings, in which agents are presented with the information they need to make decisions regarding their particular range of responsibilities, then as agents of corporate actors they can cope remarkably well with situations of great complexity (Simon 1969, 1979, 1991, 1997). Simon's insights help justify the foundational premise in both traditions that institutions matter, both by shaping contexts for decisions and by influencing how individuals understand their material interests and normative values.

NIE and the Bloomington School also share the presumption that boundedly rational actors consistently pursue their own self-interest, even when acting to serve the interests of their organization or to fulfill the terms of a commitment to cooperate with others. There is always a chance that someone may break an agreement or shirk on previous commitments, or manipulate conditions in an opportunistic manner. Anyone seeking to design effective organizations needs to take account of this ubiquitous tension, by building in institutional mechanisms to monitor behavior and enforce sanctions for violations of agreements or social norms.

Researchers in both traditions also share a deep commitment to methodological individualism. Institutional processes assign individuals to play prescribed roles within established organizations, but when push comes to shove, analysts need to understand how individual humans actually make decisions, not just what they should do in that role. Even committed methodological individualists cannot deny the existence of collective entities that, in at least some circumstances, operate as if their agents are pursuing a common purpose.

Coase (1937) decried the lack of explicit attention paid to firms by economic theorists, even in an age when national economies had become dominated by large corporations. The discipline of economics was slow to respond to Coase's clarion call, but eventually the importance of this article was recognized when Coase was awarded the

1991 Nobel Memorial Award in Economic Sciences. This classic article also inspired scholars who developed the then nascent field of New Institutional Economics.

Coase attributed the origin of firms (and by extension, other corporate actors) to widespread incentives to lower the costs necessarily entailed in any kind of transaction, including simple market exchange. Parties need to find each other, evaluate the quality of the items under consideration, assess the trustworthiness of the other party, and determine what terms of trade are acceptable. For NIE scholars, the take-away point was that political economists have every reason to expect that leaders of corporate actors will strive to adopt an organizational form that minimizes the transaction costs of production, exchange, and whatever other types of transaction in which they are engaged.

For example, firms may significantly increase profit margins by lobbying legislators and regulators to craft laws and regulations that give their firm (or their market sector) significant competitive advantages, thus allowing them to benefit from artificial rents generated and distributed by public officials. Within NIE, transaction cost minimization and rent-seeking are recognized as foundational to the dynamics of political economic systems.

In an overview of the conceptual origins of the interdisciplinary synthesis of institutional analysis now known as the Bloomington School, Elinor Ostrom (2007) identifies Coase (1937) as the foundational statement of New Institutional Economics, one critical component of that synthesis.

The 'new' institutional economics field has been a major challenge to both economists and political scientists ... Ronald Coase started the first foray in 1937 with his article on 'The Nature of the Firm'. By asking 'Why do firms exist?', he asked an embarrassing question for economists. Why should one find firms existing in the midst of highly competitive markets for strictly private goods? He challenged the presumed dichotomy of the world into markets for production, allocation, and distribution of private goods and hierarchies for the production, allocation, and distribution of collective goods. Coase answered his own question by pointing to the costs that are associated with all forms of organization that had not been included in economic models of the market. These transaction costs could be substantial and would lead entrepreneurs to try out alternative forms of organization even when they were dealing with private goods. (Ostrom 2007: 242-3)

Ostrom (2007: 243) goes on to highlight how Coase's work influenced later NIE researchers. "North (1981, 1990a, 1990b) initiated a series of studies of institutional change that challenged the static focus of both political science and economics. He examined the growth of the transaction sector in the American economy over centurylong periods and demonstrated that transaction costs were a more important factor than production costs in a modern economy." Milgrom, North, and Weingast (1990) demonstrated how "the evolution of property rights in the Middle Ages ... was affected by the need to reduce uncertainty in relationships and the costs of transactions" and that "a variety of self-organized institutions had guaranteed the property rights of merchants long before the creation of a state." Finally, Ostrom notes that "Oliver Williamson (1975, 1985) also took up Coase's challenge to examine a diversity of internal mechanisms within firms to keep agents accountable and to reduce transaction costs."

Although Ostrom (2007) acknowledges NIE research on transaction costs as an important contribution to the Bloomington School, most of her conceptual overview focuses on developments related to other sources, especially public choice and polycentric governance, natural resource management and commons research, and experimental research in behavioral game theory. The Ostrom research tradition overlaps with NIE in many ways, but that overlap is by no means complete.

NIE scholars tend to conceptualize politics as exchanges between public officials and private actors (individual citizens, corporate agents, or representatives of interest groups), but Bloomington School scholars counter that politics encompasses a far broader range of experience than mere exchange. Consider education or health: the active involvement of students or patients is essential if they are going to able to realize a quality education or good health (Ostrom 1996). The same can be said for public safety and many other local public goods (McGinnis 1999b, Ostrom 2006). To Bloomington School scholars, "coproduction" denotes situations in which the

active personal involvement of the consumer (or the beneficiary of an assistance program) is a requisite input for the production of a high quality good or service.

A basic tenet of the Bloomington School is that governance should be understood as coproduction, a form of collective action in which the governed see themselves as an integral part of the governing process. This emphasis on active citizen participation inclines scholars from the Bloomington School to be more willing to incorporate normative considerations into their analyses than other social scientists. In her Nobel address, Elinor Ostrom concludes that the "most important lesson for public policy analysis" from institutional political economy is the realization that "humans have a more complex motivational structure and more capability to solve social dilemmas than posited in earlier rational choice theory." (Ostrom 2010:664, Boettke et al. 2016:237) She goes on to articulate a radically optimistic vision:

Designing institutions to force (or nudge) entirely self-interested individuals to achieve better outcomes has been the major goal posited by policy analysis for governments to accomplish for much of the past half century. Extensive empirical research leads me to argue that instead, a core goal of public policy should be to facilitate the development of institutions that bring out the best in humans." (Ostrom 2010:664-665, Boettke et al. 2016:237-238)

This explicitly normative claim stands in stark contrast to the standard NIE injunction to policy-makers to "get the institutions right," that is, to select laws and regulations that give policy actors incentives to choose actions that facilitate efficient operation of markets, with scant consideration of non-economic consequences. The following section argues that this stark divergence of world views has its origin in seemingly minor differences in the interpretation of a few concepts that play prominent roles in both research traditions.

3.3 Subtle Shades of Meaning: Institutions, Organizations, and Property Rights

Douglass North and Elinor Ostrom have provided influential definitions of the core concept of "institution" that succinctly summarize key precepts of NIE and the Bloomington School, respectively. At first glance they seem similar, but they turn out to have quite different consequences for institutional research and policy analysis.

Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction. In consequence they structure incentives in human exchange whether political, social, or economic. (North 1990a: 3)

Broadly defined, institutions are the prescriptions that humans use to organize all forms of repetitive and structured interactions including those within families, neighborhoods, markets, firms, sports leagues, churches, private associations, and governments at all levels. (Ostrom 2005: 3)

North treats institutions primarily as constraints on behavior, but for Ostrom institutions are critically important resources that groups can use to support efforts to resolve common problems or to achieve shared aspirations. Both use the term "institution" to include written laws, rules, and regulations, as well as organizations whose agents have the responsibility to act on behalf of a larger group. Both North and Ostrom acknowledge the importance of informal arrangements such as conventions, codes of behavior, common values, norms, and shared modes of understanding, but they differ in their interpretation of these kinds of informal institutions. In a recent effort to systematize NIE in the Institutional and Organizational Analysis (IOA) framework, Alston et al. (2018) draw a sharp distinction between formal organizations and informal norms, but for Ostrom (2005), the boundary between formal and informal remains intrinsically fuzzy, their subtle inter-weavings impossible to untangle completely.

These alternative definitions of institutions have a striking impact on how scholars operating within the respective schools conceptualize and study organizations.

Institutions are the rules of the game – both formal rules, informal norms and their enforcement characteristics. Together they define the way the game is played. Organizations are the players.

They are made up of groups of individuals held together by some common objectives... The immediate objective of organizations may be profit maximizing (for firms) or improving reelection prospects (for political parties); but the ultimate objective is survival because all organizations live in a world of scarcity and hence competition. (North 2008: 22)

An organization is composed of one or more (usually more) action situations linked together by prescriptions specifying how outcomes from one situation become inputs into others. Organizations may be thought of as a tree or a lattice with situations at each node. A particular set of rules structures the situation at each node. A general set of rules partially structures all internal situations and specifies the paths that may be chosen from one situation to the next. (Ostrom 2005: 57)

North clearly designates organizations as actors in a game, but Ostrom's vision of organizational behavor requires further elaboration. "Action situation" is a technical term from the Institutional Analysis and Development (IAD) or Social-Ecological Systems (SES) frameworks used so frequently by scholars from the Bloomington School (see Ostrom 2005, 2011, McGinnis 2011a, McGinnis and Ostrom 2014, Schlager and Cox 2017, Cole et al 2019). In essence, an action situation is an abstract representation of a site of strategic interaction occurring within social, physical, and institutional constraints. It is closely related to the more commonly used concept of a game, in the sense that both action situations and game models connote settings in which individuals or corporate actors make choices that jointly determine some outcome or outcomes. To define the rules of a game or the working components of an action situation (Ostrom 1986, 2005), analysts must specify the players and the positions they hold, the choice options available to them, how those choices combine to generate alternative outcomes, all actors' preferences over those outcomes, and the information and other resources available to each actor, including resources they can use to influence each other.

Action situations differ from standard game models in that participants in the former are presumed to be capable of reconsidering the desirability of the rules under which they interact and to work together to change those rules through some process of collective action. Such efforts can, of course, be costly to undertake and uncertain in effect, but players in game models are rarely assumed to have that level of self-control over the games they are playing (but see Ostrom et al. 1984).

In the quote given above, Ostrom uses the concept of an action situation as a basic building block to construct a formal organization as a complex network of multiple inter-linked sites of collaboration or contestation among executives, workers, and other stakeholders. Some component action situations may generate outcomes that shape the decision procedures employed by actors in situations of operational or collective choice, and the very same individuals may (or may not) be involved in both kinds of action situations. In effect, players in an action situation must first come to a shared understanding concerning the nature of the particular game they are playing at any one time. In addition, the overall performance of an organization conceptualized as a network of adjacent action situations (McGinnis 2011b) could be profoundly affected by dynamics within and between informal social networks, which rarely comport with formal connections designated in organizational charts. Frankly, this definition of a formal organization as a complex amalgam of action situations and other institutional arrangements, strategic interactions, normative prescriptions, and social networks is neither clear nor easy to apply in practical applications (McGinnis 2019).

Formal organizations are much more clearly defined within the NIE tradition. In his Nobel address, Williamson (2010) paid homage to the 1991 Nobelist, Ronald Coase (1992), for his insightful recognition of the central importance of transaction costs and property rights to the ways in which corporations are established, and the effects those organizational structures can have on the performance of real economies. Coase provided the theoretical foundation for a robust research program pioneered by Williamson, built on three empirical measures of transaction costs: asset specificity, uncertainty, and frequency (Williamson 1975, 1985, 1996, Williamson and Winter 1993). Each dimension refers to aspects of a potentially repeatable exchange that can generate potential problems between the parties. Take asset specificity as an example. If a product is being produced specifically for the use of one party, and if few other suppliers were available, then the producer could take advantage of this situation by insisting on a higher price than originally agreed, once the buyer has become dependent on continued access to that product. Similarly, if measures of a product's quality are intrinsically uncertain or more fully known by one of the parties, this can considerably complicate negotiations over terms of exchange. Finally, parties who

expect to interact frequently should have confidence that they will have later opportunities to renegotiate the details of their contracts, if one or both parties deem that changed circumstances warrant reconsideration. Depending on the mix of a potential transaction's characteristics on these three dimensions, the parties may prefer to structure their interactions in the form of a one-off market exchange, or a long-term contract with provisions for renegotiation or arbitration when needed, or by consolidating themselves into a single organization, or one of many hybridized versions combining aspects of these basic elements.

Williamson highlighted the importance of transaction costs on shaping the organizational forms contracts, partnerships, firms, or other arrangements between economic actors are likely to be take in different circumstances. One of Williamson's primary concerns was to deal with the danger that one or more parties might act in an opportunistic manner to exploit future situations. His solution was to find a way for parties to make credible commitments to a good faith effort to live up to the terms of the contract or other form of coordination. This theme of credible commitment lies at the core of NIE research.

A particularly important type of contractual relationship for NIE scholars concerns interactions between principals and their agents. A principal is an actor seeking to accomplish some goal that requires the assistance of an agent with specialized knowledge, skill, or assets. Agents usually have an incentive to shirk on their responsibilities or to hide information or otherwise misrepresent the quality of the services they provide. In response to this ubiquitous dilemma, principals strive to design contractual relationships that specify the agent's rewards for good performance and the information that the principal can require from that agent, in a way that closely aligns the self-interest of the agent to the primary interests of the principal.

Seen through the analytical lens of agent-principal relationships, policy systems can prove very difficult to untangle. Consider, for example, how frequently the executive, legislature, judicial, and administrative branches of a liberal democratic government work at cross-purposes, even though all are acting as agents of the public at large. The public selects representatives to act on their behalf, and bureaucrats serve as agents of elected officials, but bureaucrats, who have more direct control over policy levers, face incentives to shirk by slanting policy implementation to favor their own policy preferences. Rigorous investigations of the logical inter-relationships among these inter-connected principals and agents have demonstrated that different configurations of the policy preferences of median voters in legislative bodies and the realized preferences of administrators or judges authorized to resolve policy disputes can result in substantially different patterns of policy outcomes, many of which seem unconnected to public opinion on those same issues, or even to the preferences of elected officials (Shepsle 2010, Alston et al. 2018).

For NIE scholars, the security of property rights in different kinds of political economic systems has been a particular point of concern. Most famously, Douglass North has investigated many ways in which property owners can come to feel that their rights to that property are secure (North and Thomas 1973, North 1981, 1990a,b, 2005, North et al. 2009). This is such an important problem because sustained economic growth requires investor confidence in the security of their assets. In the absence of secure property rights, owners are unlikely to willingly invest in improvements of those assets, since they have no assurance that they will be able to reap any benefits from those investments. Herein lies the short answer to the big question of why wealth, prosperity, and quality of life vary so widely across countries of the world: countries with insecure property rights fall behind countries whose leaders have solved that problem by establishing political, economic, and social institutions that credibly protect property rights (North 1990a, Alston et al. 2018).

In contrast to this emphasis on state protection of property rights, Bloomington School scholars see property as an institution that imparts a highly variable bundle of rights and obligations to a potentially wide range of affected parties. For the purposes of empirical comparisons, Schlager and Ostrom (1992) unpack the concept of property into a small number of configurations of rights: access, withdrawal, management, exclusion, and alienation. Different configurations of rights and obligations can be, and often are, created and monitored in a bottom-up fashion by a community trying to solve some problem of collective action (Ostrom 1990, 2010). Real-world property systems can be incredibly complex, and Cole and Ostrom (2012) move beyond simplistic categories of private, public, and common property to highlight the wide variety of mixed, context-specific, and contingent property arrangements in operation throughout the world.

Complexity of property rights has not escaped the notice of NIE scholarship. For example, Barzel (1997, 2002) weaves an economic model of diverse property forms into his interpretation of the historical origins of the state. In his Nobel address, NIE pioneer Ronald Coase noted that "what are traded on the market are not, as is often supposed by economists, physical entities, but the rights to perform certain actions, and the rights which individuals possess are established by the legal system." (Coase 1992:717; Boettke et al. 2016:37) Hadfield (2008) explores the complex array of legal institutions needed to protect contracts though the evolution of common law, and several chapters in Furubotn and Richter (2005) investigate alternative forms of property and contractual obligations.

Property over land and its associated resources has been an especially fertile topic for different modes of research in this tradition. Alston et al. (1999) investigate changing methods of formal land titling on the frontier of Amazon region in Brazil, while Galini and Schargrodsky (2014) examine a natural experiment in more informal land titling processes in areas near Buenos Aries. Finally, property lies at the heart of the IOA framework, in which the primary purpose of political authority is to secure private rights over property, including the right to make policy decisions, both of which are critical foundations for the vitality of the overall economy (Alston et al. 2018).

Allowing for endogenous changes in rules and configurations of rights and obligations compounds the difficulties of analyzing property regimes within the Bloomington School tradition, but in so doing it brings a broader perspective that can have profound implications for policy. In a very influential article, Hardin (1968) argued that commonly owned resources will nearly always degenerate into a "tragedy of the commons" unless external actors intervene by assigning the responsibility of managing that shared resource to some central authority, or by splitting the commons up into separate tracts of private property. Ostrom (1990) demolished any pretentions to universal validity of Hardin's claim by demonstrating that in many places throughout the world community groups dependent on shared resources have insured continued access to those resources by working together to formulate and enforce rules on themselves, provided those rules satisfy a series of "design principles" (discussed in the next section).

However, endogenous rule-making at this level of frequency and effectiveness is possible only if the relevant actors can step back from day-to-day decisions to engage in extended deliberations on what kinds of rules would be appropriate and who should be responsible for enforcing those rules. Not all communities enjoy that level of autonomy or capacity for effective collective action. The next section shifts attention to questions of political, economic and social order at the macro-level.

3.4 A Question of Emphasis: Rent-Seeking, Credible Commitments, Public Entrepreneurs, and Polycentric Governance

For NIE scholars, the persistence of significant variation in the economic performance of different political economic systems poses a profound puzzle (North 1990a, Alston et al. 2018). One essential piece of that puzzle's solution is that path dependence is a common property of historical processes (North 1990a). Past choices limit later opportunities for choice, by opening up new opportunities while discouraging or even closing off other potential directions of change. Furthermore, not all interests are created equal. Actors who have benefited the most from existing institutions have at their disposal more resources relevant to helping them prevail in future contestations over policy change, and their determined opposition may scuttle any reform meant to empower other actors. In effect, power imparts a persistent bias in the distribution of transaction costs, and power holders will act to perpetuate (and to widen) existing inequities.

NIE scholars tend to see politics as a form of exchange, typically between economic principals and political agents. Political executives, legislators or bureaucratic officials can significantly alter the overall performance of the economy, since they are empowered to write laws and enforce regulations that determine the rules under which markets operate. More abstractly, the "state" acts an agent of society, tasked with the purpose of providing national security and other public goods, notably the protection of property rights and other legal guarantees needed to support the efficiency of markets. But, as noted above, agents often have incentives to act contrary to the interests of their principals.

NIE researchers are particularly concerned about rent-seeking. Inherent in the logic of public authority is the ability to use laws and regulations to create artificial scarcities from which holders of those scarce resources can

extract rents, that is, benefits beyond what might be expected from free market exchange. Private actors face strong incentives to influence public officials to implement laws and regulations that serve their own special interests, at the expense of the public as a whole. Given obvious rewards to play favorites by distributing benefits to supporters, it cannot be assumed that political leaders will design (or even respect) institutional arrangements that help generate a well-performing economy.

In sum, NIE shares with public choice a vision of the state as a provider of rents to its supporters, and only incidentally as a provider of public goods (e.g., protecting property rights). This dilemma has been highlighted in a compellingly succinct way by Weingast (1995:1):

A government strong enough to protect property rights and enforce contracts is also strong enough to confiscate the wealth of its citizens. Thriving markets require not only the appropriate system of property rights and a law of contracts, but a secure political foundation that limits the ability of the state to confiscate wealth.

The problem here is one of credible commitment: How can state officials commit to not taking advantage of their coercive capacity? State officials will need to reward their supporters in some way, and all institutional arrangements can have uneven distributional consequences (Knight 1992). Without credible limits on state extraction, rent-seeking may become so pervasive as to destroy the economy, as competing interests strive to make deals with state officials to protect their own interests at the expense of competitors and of society at large.

To consider possible resolutions of this dilemma, NIE scholars draw upon the tools of game theory to understand how institutions define the games that political and economic actors play, as well as how new institutions might emerge or be established through repetition of those games. For example, a game played repeatedly may generate stable and mutually beneficial patterns of outcomes, if players can realize long-term benefits from maintaining a reputation for fair-dealing. In short, existing institutional arrangements structure games, and new institutions can emerge from those games.

NIE scholars focus their attention on the emergence of new institutions that can be characterized as self-enforcing equilibria of recurring games (Eggertsson 1990). They are self-enforcing in the sense of being a Nash equilibrium: each party considers it in their own self-interest to behave as required for that outcome to recur, as long as everyone else continues to see advantages in not deviating from the current arrangement. When players have the option of considering new institutional solutions, NIE scholars limit their attention to proposed solutions that would be self-enforcing in this sense.

However, game players may explore other options that are difficult to specify within the formal constraints of any specific game. Players may work together to change the rules of the game before it comes up again, or establish a new collective actor or public authority with the responsibility of insuring more desirable outcomes. In addition to building new organizations, policy actors may influence the normative expectations shared by some or all participants, or they may work together to define entirely new games. Scholars in the Bloomington School tradition insist that policy actors always have access to at least some creative options.

NIE scholars also strive to move beyond the limitations of traditional game models. After demonstrating that in some models equilibria can emerge in which the state commits to protect property rights in ways that are credible enough to incentivize property holders to invest in the economy and control their inclination to seek excessive rents, some NIE researchers then turn to the historical record to understand how those kinds of equilibrium solutions were arrived at in particular cases, to better understand why some economic systems prosper while others remain mired in a morass of rampant rent-seeking.

In the method of analytic narratives (Bates et al. 1988), a game model and its associated equilibria solutions help frame the researchers' analysis and presentation of historical evidence. Used in this way, simple game models can inform convincing reconstructions of critical junctures in the evolution of political economic regimes, such as the rise of merchant capitalism in medieval Europe (Milgrom, et al. 1990, Greif 1988, 2006). This mode of analysis can be used to support alternative explanations of particular events. For example, North and Weingast (1989) conclude that formal changes in institutions were the primary reason behind the Glorious Revolution in 17th century England, whereas Pincus and Robinson (2014) stress the importance of informal changes in political leadership.

Many other examples of this mode of analysis are discussed in Furubotn and Richter (2005), North et al. (2009), and Alston et al. (2018.).

The long trajectory of North's research agenda evolved from an early focus on how equilibrium institutions are shaped by changing technology and new economic opportunities, to later focus more explicitly on the historical development of political institutions that directly address commitment problems (Ménard and Shirley 2014). North's interpretation of the effect of the Industrial Revolution in England has been challenged by Mokyr (2014), who counters that cultural entrepreneurs who had earlier changed society's image of science and technology built the foundation for that transformative event. Similarly, Acemoglu and Robinson (2012) argue informal adjustments in de facto power relationships had a more significant impact on major regime changes in formal political institutions.

The NIE-public choice view of the state as acting in cahoots with rent-seekers is sharply at odds with the view of politics within the Bloomington School. Both Vincent and Elinor Ostrom expressed deep appreciation for the ability of groups of fallible but capable individuals to govern themselves, by coming together to form diverse kinds of groups, associations, and formal organizations to engage in respectful contestation as a means towards resolving common problems and realizing shared aspirations. Although Bloomington School researchers acknowledge potential abuses of public authority (V. Ostrom 1991, 1997), they also recognize that authorities play legitimate roles beyond just the resolution of credible commitment problems (E. Ostrom 1996, 2006).

At this point it is useful to clarify the distinction between NIE as a subfield of "institutional economics" and Bloomington School research as a mode of "institutional analysis." NIE naturally focuses on economic measures of performance: efficiency, growth, and development. In contrast, institutional analysts pursue more encompassing and less precise goals of identifying, analyzing, and understanding the social foundations of self-governance. To understand the long-term sustainability of macro-level patterns of social order, analytical efforts need to extend well beyond the ways credible commitments can support the security of property rights.

From the very beginning of their academic careers, both Vincent Ostrom (1953) and Elinor Ostrom (1965) emphasized that political change and improvements in policy outcomes are driven by the efforts of public entrepreneurs (who may be public officials, community leaders, or individual citizens) to identify collective problems or shared aspirations, and to explore available options or invent new ones when necessary. Collective entities constructed and operated by public entrepreneurs interact with each other in complex configurations of competition, collaboration, or integration. Let this process run long enough, and a very complex array of interconnected centers of authority will emerge and will continue to evolve as circumstances change (Aligica 2014). Furthermore, contributions from a wide range of public entrepreneurs are critical to the long-term sustainability of the civic foundations of liberal democracy (Aligica 2019; Aligica, Boettke and Tarko 2019).

Ostrom, Tiebout, and Warren (1961) introduced the term "polycentric political system" to describe patterns of metropolitan governance as a complex tapestry of cooperative and competitive interactions among public authorities with overlapping areas of jurisdiction. Urban reformers saw this as wasteful and advocated regional consolidation, but these authors stressed the practical benefits of maintaining units for the production of public goods at multiple scales of aggregation, because different public goods are most efficiently produced at different scales. Empirical researchers later documented that there are indeed benefits to maintaining multiple levels of jurisdictions in metropolitan settings (Ostrom 1972, 2010, McGinnis 1999b, Oakerson 1999, Oakerson and Parks 2011, Boettke et al. 2013).

In Governing the Commons Ostrom (1990) identified eight "design principles" that were satisfied, in one way or another, by all the cases she examined in which local communities had managed to sustain their shared access to critical resources. Beyond requiring that the user group has a minimal level of de facto autonomy to make and enforce rules for their own interactions, there is nothing in that list of conditions that refers to the guaranteed security of property rights or requires reductions in transaction costs. To the contrary, the key finding of Ostrom's research is that resource users should be directly involved in as many aspects of the whole process as possible: resource extraction, infrastructure construction and maintenance, rule-making, norm-setting, monitoring, sanctioning, and dispute resolution. For Ostrom the high transaction costs of political contestation in all these activities are investments in building that community's capacity for effective stewardship of the resources they need to remain self-governing.

NIE and the Bloomington School manifest contrasting responses to the duality of political institutions.

Political institutions serve two very different purposes. On the one hand, they help mitigate collective-action problems, particularly the commitment and enforcement problems so debilitating to political exchange, and thus allow the various actors in politics to cooperate in the realization of gains from trade. On the other hand, political institutions are also weapons of coercion and redistribution. They are the structural means by which political winners pursue their own interests, often at the great expense of political losers. (Moe 1990: 213)

Moe argues that NIE scholars, for the most part, treat politics as if it were merely "an extension of economics" by highlighting exchanges between the state and its rent-seeking supporters, but concludes instead that "Politics is fundamentally about the exercise of public authority and the struggle to gain control over it." (1990: 217, 221) Public authorities can force others to behave in certain ways, and this power can be abused, either directly or in thrall to private interests. Even self-governance will at times require means to enforce collective decisions on reluctant community members, but the foundational principle of liberal democratic governance is that communities must develop effective ways to limit abuses of political authority (Aligica et al. 2019).

A theme common to Williamson's micro-level investigations of alternative organizational forms and North's macro-level examination of property rights and economic growth is their identification of a single evaluative criterion: the efficiency of alternative organizational forms or the overall performance of the economy (Eggertsson 1990). In contrast, the design principles discovered by Ostrom (1990) demonstrate that more than economic efficiency is needed for the successful management of at least some public economies, especially over the long term.

In lieu of positing equilibria determined by optimization on any single criterion, Bloomington School scholars expect a high-performing system of polycentric governance will support endless innovations in technology, politics, economics, culture, and society as a whole. In her contribution to a 2010 conference on the legacy of Douglass North, Elinor Ostrom embraces this lack of optimality:

Polycentric systems are themselves complex, adaptive systems without one central authority dominating all of the others. Thus, there is no guarantee that such systems will find the optimal combination of rules. One should expect all governance systems to [be] operating at less than optimal levels given the immense difficulty of fine-tuning complex, multitiered systems. Empirical research, however, has documented that polycentric systems frequently outperform either fully centralized or decentralized systems when citizens are expected to contribute significant efforts to use resource systems sustainably ... Such systems look terribly messy and hard to understand. The scholars' love of tidiness needs to be resisted. (Ostrom 2014: 104)

In a very different vein, North, Wallis, and Weingast (2009) develop a broad-ranging analytical meganarrative centered around two distinctive types of political-economic systems. In the "natural state" governments reward their supporters with access to valuable rents while routinely infringing on the rights of other sectors of society. Conversely, in societies that have made a successful transition to an "open access" regime, states protect the rights of all groups and enhance their opportunities for advancement. The authors use examples from several geographical regions and historical eras to demonstrate that open access orders can achieve and maintain a long-term equilibrium with values of economic wealth and human rights significantly higher than in states that remain in the natural state.

This contrast between social orders based on open versus limited access is reminiscent of Vincent Ostrom's normative justification of polycentric governance (V. Ostrom 1972, 1989, 1991, 1997), which he contrasts to a repressive monocentric system in which all political power is ultimately concentrated in a single authority, along the lines of Hobbes' *Leviathan* (1962 [1651]). Vincent's conceptualization of polycentricity is typically seen as closely related to the self-organized emergent order emphasized by Polanyi (1951), but a more apt analogy may be to Schumpeter (1934, 1942), especially with respect to the latter's emphasis on creative destruction. For Schumpeter, a capitalist economy is intrinsically dynamic, and can never be at rest. Innovators disrupt existing monopolies or

dominant sectors, and if an innovator's successors achieve a similar monopoly-like position, they will themselves be disrupted during the next round of innovation.

Schumpeter's interpretation of a pervasively dynamic economic system deviates from the Northian ideal of a stable equilibrium that strongly protects the security of property rights as currently defined. In a Schumpeterian system, no dominant market position or valuable form of property can ever be truly secure from the danger of disruption from the emergence of new technologies that dramatically undermine the value of current forms of property. In a fully polycentric system (V. Ostrom 1972, 1991), any local or domain-specific concentration of power is similarly at risk, as long as rivals or innovators working in other policy domains retain sufficient autonomy to disrupt dominant powers. Schumpeter's logic of creative destruction is relentless, as is Vincent Ostrom's vision of polycentricity, in that new forms of collective action will continue to emerge to address new problems and to undermine past solutions that are no longer effective (Aligica and Tarko 2012, Aligica 2014, McGinnis 2005, 2019). Polycentric governance is, by definition, open-ended.

This vision suggests that we should reconsider the primary goal of policy intervention in political economies. Given the critical contribution of innovation to economic growth and prosperity in modern economies, governmental efforts to facilitate innovations has become a key element of economic development policies. A recent overview of Schumpeter's influence on contemporary understanding of innovation systems concludes "innovation policy should be about facilitating the self-organization of innovation systems across the entire economy, not only in 'new' sectors." (Metcalfe 2007:943) Similarly, the logic of polycentricity implies that the primary goal of government policy should be to strengthen the capacity of disadvantaged groups to self-organize as they strive to improve conditions governing their own existence. This goal would help societies follow Elinor Ostrom's advice to use policy to build institutional arrangements that "bring out the best in humans." (Ostrom 2010, 664-65; see above)

3.5 Opportunities for Closer Integration: Transaction Costs, Process Narratives, and Social Foundations of Order

Despite the decidedly different developmental paths they have followed since their common origins in the public choice movement, New Institutional Economics and the Bloomington School share a deep commitment to understanding the institutional foundations behind political and economic change. Scholars in these traditions continue to produce research of considerable interest to each other. Looking forward, these complementary perspectives may prove even more effective when wielded in combination.

NIE's focus on principal-agent problems emphasizes managerial problems faced by top-down control, while Bloomington School scholars emphasize bottom-up processes of joint participation in crafting, monitoring, enforcing, evaluating, and revising rules and the shared norms which support the legitimacy of those rules. The Bloomington School's aspirations of breaking up organizations into a complex network of mutually reinforcing institutional arrangements may make organizational analysis more unwieldly than necessary, while NIE's focus on formal organizations may bias analyses of social order in favor of overly simplistic managerial models of organizational behavior, at the risk of downplaying the critical importance of identifying (and building upon) the normative values and aspirations shared by the people playing leading roles within society as a whole, or within any single organization. Strategic utilization of their complementary strengths may help offset constraints inherent in either tradition when considered on its own.

This chapter concludes with a brief discussion of three promising directions for further collaborations: (1) explicit incorporation of transaction costs into analyses of the behavior of public organizations, (2) rigorous analytic narratives of path-dependent sequences of endogenous institutional change in polycentric systems, and (3) increased attention to the social and cultural foundations of social order.

Although the initial statement of polycentric governance (Ostrom, Tiebout, and Warren 1961) was directed at public administrators and political scientists who study their behavior, this article did not attract much attention from contemporary policy-makers or mainstream policy scholars. Ironically, its core point about the need for complex networks of governing units is now understood as a commonplace occurrence and a central topic of research on public administration (McGinnis and E. Ostrom 2012). Looking forward, the need for polycentricity in governance may become even more broadly appreciated through the efforts of researchers using the Institutional

Collective Action (ICA) framework, in which the primary actors are public officials acting as agents for public, private, and community organizations operating at different scales (Feiock 2009, 2013, Feiock and Scholz 2009, Swann and Kim 2018).

Feiock (2009, 2013) uses a Williamson-type parametrization of the empirical sources of transaction costs to establish a taxonomy of different forms of collaborative arrangements among municipal authorities. As top officials in diverse agencies or other organizations contemplate moving beyond single instances of cooperative behavior to long-term contracts or formal consolidation with other agencies, they must learn to address new sources of risk and uncertainty. Feiock (2013: 408) argues that "Collaboration risk in the underlying ICA dilemma reflects the risks of not being able to coordinate on a course of action (incoordination); not being able to agree to a division of costs despite agreeing on the action (division); or risk that once action is agreed upon, others may renege or free ride (defection)." By thinking through how these sources of risk interact in different configurations, different types of public agencies or collaborations emerge to match the nature of the problem being addressed. In this way the ICA framework provides conceptual clarity to the confusing variety of cross-sector collaborations found in metropolitan areas. It may also have important new policy implications – Swann and Kim (2018) use the ICA framework to draw practical lessons for public officials charged with the responsibility of managing fragmented governments. In sum, the ICA research program shows how a foundational aspect of NIE methods can be directly incorporated into a research project inspired by polycentric governance, a core concept from the Bloomington School.

In a second potential path toward cross-school collaboration, Bloomington School researchers who want to analyze the historical evolution of polycentric systems of governance might learn from NIE-style analytic narratives. As reviewed above, careful matching of game components to relevant aspects of the historical record can provide important insights into the often hidden logic of institutional development across time. In extensive form games, the sequence of choices is specified exogenously, and expected outcomes vary according to the order in which actors act and the timing of their receipt of information related to the choices of other players. Much the same might be accomplished by looking at how related action situations can be endogenously connected to craft historically informed narratives of the sequence of strategies, decisions, and outcomes in studies of the co-production of goods or public services, or the contributions of different kinds of public entrepreneurs to the resolution of policy dilemmas (McGinnis 2019).

Using path-dependence as a more explicit factor in models of policy settings could be especially useful for applications to recurring dilemmas. Consider, for example, a comment from Elinor Ostrom that Vlad Tarko noted in his intellectual biography of her (Tarko 2017:32,108): "Failure, in many cases, leads to adoption of another program – one often based, as was the first, on inadequate analysis of the strategic behavior of the different actors. Failure seems to breed failure." (Ostrom 1976: 7) I interpret Ostrom's comment here as a challenge to institutional analysts to develop carefully specified models of the circumstances under which cascades of policy failure may occur.

In *The Samaritan's Dilemma* (Gibson et al. 2005), Elinor Ostrom and her collaborators identified a recurring example of failure in the development assistance provided by the Swedish International Development Agency (SIDA) to poorer countries. The researchers combined concepts from the IAD framework and principal-agent models to formulate questions for interviews with SIDA officials in Sweden and in the recipient countries, and to organize their case studies of specific development projects. This research team concluded that members of recipient communities should be encouraged to be directly involved in all steps of the process from initial planning to proposal budgeting to construction (or co-production) and especially maintenance over the long-term. They found that, ironically, local ownership of development projects had long been an avowed goal of top SIDA officials, but their own actions prevented them from achieving that goal. Routine patterns of employee rotation and advancement within SIDA itself gave project managers perverse incentives to spend the authorized money within the budgeted period, no matter what the conditions were on the ground, rather than to maintain attention to any particular project over the full range of time needed for its implementation. They concluded that the most influential actors in the whole process were contractors (mostly Swedish construction firms) hired to build and maintain these projects, rather than members of the recipient communities. A broader study of SIDA or other development agencies might benefit from careful attention to the hidden sources behind such sequential unfoldings of cascading policy failures.

Finally, New Institutional Economics might be enriched by a fuller appreciation of the influence of non-explicitly political or economic factors on the path-dependent co-evolution of political-economic-social-technological systems. Important steps along these lines have already been taken. In her summary of NIE's

contributions to institutional analysis noted above, Elinor Ostrom (2007:243) remarked on NIE efforts "to expand the model of human behavior used to explain institutional behavior so as to be broadly consistent with important developments in cognitive science (Denzau and North, 1994; North, 2005)." In one of the works she cited, Denzau and North (1994: 4) highlight deep interconnections between institutions and the mental models that guide individual behavior: "mental models are the internal representations that individual cognitive systems create to interpret the environment; the institutions are the external (to the mind) mechanisms individuals create to structure and order the environment." Furthermore, mental models are deeply rooted in the cultural foundations of social order. As argued by Gehlbach and Malesky (2014), the failure of post-transition countries to fully benefit from the establishment of market economies after the fall of communism in Eastern Europe strongly suggests the need to dig deeper than mental constructs of self-interest or organizational structures.

Alexis de Tocqueville's *Democracy in America* deeply influenced how Vincent Ostrom came to understand social order as the ultimate foundation for the modes of institutional analysis required to build and sustain self-governing societies (V. Ostrom 1997). Recent works in the Bloomington School and beyond demonstrate the continuing relevance of Tocqueville's insights to the contemporary world (Craiutu and Geller 2009, Henderson 2015, Sabetti and Castiglione 2017, and Schleifer 2018, 102-123). Although Tocqueville rarely used explicitly economic terms, I'm confident he would encourage us to recognize the high value of costly investments in encouraging widespread personal experience with self-governance in all kinds of communities. Future generations of institutional political economists would be well-advised to pay careful attention to understanding how self-governing citizens and public entrepreneurs can learn to make even more effective use of the essential institutions of markets, firms, property, and polycentric governance.

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