

The Knowledge and Policy Limits of New Institutional Economics on Development

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Abstract: I critically examine the effort of new institutional economics (NIE) scholars to define, map, and measure the realm of formal and informal institutions, and to offer specific policy prescriptions. I also articulate why these efforts face insurmountable barriers, and demonstrate the limits of the NIE policy agenda by showing that scholars are repeating lessons learned in law and development over four decades ago.

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New institutional economics (NIE) has secured impressive achievements in academia and policy circles. Four Nobel Prizes in economics have gone to NIE scholars Ronald Coase, Douglass C. North, Elinor Ostrom, and Oliver Williamson. The World Bank and other development organizations in the past two decades have expended billions of dollars on efforts to build “good governance” and the “rule of law” informed by the NIE theory that economic development requires supportive political and legal institutions (Cameron 2004). A recent best-selling book, *Why Nations Fail*, by Daron Acemoglu and James Robinson, introduces a wide public audience to the NIE perspective on political and economic development. NIE appears to be the new consensus view of development thinking, supplanting the neo-liberal Washington Consensus that dominated global development policy in the 1980s and 1990s.

NIE has criticized neoclassical economics for failing to appreciate the extent to which formal and informal institutions shape and constrain available opportunities, and for not recognizing that people make decisions with limited information through mental constructs that can be faulty (North 1990, 3-10). Awareness of these factors helps explain the entrenchment of inefficient institutions that reduce economic development over time, locked in place through path dependence and resistance to change by stakeholders who procure benefits from existing arrangements. By focusing attention on institutional influences, NIE scholars interested in the development field

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set out to construct a framework with greater explanatory power that can produce policy prescriptions for economic development.

The strength of NIE – attention to surrounding social influences on economic behavior – has brought immense challenges. It is hard enough to take account of the impact of formal political and legal institutions about which NIE scholars have produced illuminating work (Menard and Shirley 2005). But the fundamental explanatory level lies beneath formal institutions in informal institutions, norms, conventions, ideas, ideologies, values, and culture more generally. The informal level shapes the operation of the formal level as well as economic activities and, in turn, is influenced by them.

This is the “interconnectedness of society.” Cultural, technological, legal, political, and economic activities all affect one another, often in ways that are subtle and invisible. An economist engaged in development work called this “the single most important insight of the field of economics – that you have to be aware of the fact that everything is connected to everything else” (Banerjee 2009). Not only is everything connected, but the interaction is dynamic. Ideas and actions lead to modifications and reactions; everything is moving and never standing still. As a consequence, every society is different and changes along unique lines because no two places have the same history, surroundings, and mix of interacting factors. “Old” institutional economics was built around these very insights, which a number of contemporary economic institutionalists continue to highlight.¹ NIE, in general, has yet to recognize its full implications.

Interconnectedness, dynamism, and uniqueness are fatal to two specific goals announced by NIE scholars: (i) to map and measure the institutional terrain and (ii) to offer specific policy advice on how to improve economic performance through institutional reform. To show this, I explore the ongoing struggle to identify a shared conception of “institution,” and explain why this cannot be solved. For reasons I go on to elaborate, NIE scholars also will not be able to get a precise grip on the surrounding institutional influences that affect economic development. This incapacity shows up time and again in NIE research. The same barriers that stand in the way of knowledge also promise to stymie the policy ambitions of NIE scholars seeking to promote economic development. NIE scholars today, it turns out, are repeating lessons announced five decades ago in the law and development field. The problems were insuperable then and will remain so. Owing to these barriers, little advice can be offered beyond commonsense recommendations – pay attention to local circumstances, experiment to find out what works, do not apply a “one-size-fits-all” model. Interconnectedness, dynamism, and uniqueness are behind this advice.

While critical of NIE knowledge and policy objectives, this essay is not negative in orientation. NIE research is illuminating. Greater awareness of the limits will help orient future work in the field in the most fruitful directions.

¹ Examples include Warren J. Samuels (2003), Geoffrey M. Hodgson (2000; 2009), William Dugger (1990), Walter C. Neale (1987), Paul Dale Bush (1987), as well as Charles K. Wilber and Robert S. Harrison (1978).

Defining “Institutions”

To build cumulative knowledge and make reliable measurements, NIE scholars have asserted, it is essential to come up with agreed upon definitions of institutions. “If every social science discipline or subdiscipline uses a different language for key terms and focuses on different levels of explanation as the ‘proper’ way to understand behavior and outcomes, one can understand why discourse may resemble a Tower of Babel rather than a cumulative body of knowledge,” Elinor Ostrom (2005b, 11) observed. Another NIE scholar remarked: “Only if institutions can be measured with a minimum degree of confidence are empirical statements such as ‘institutions matter for y’ credible. There are many ways of delineating institutions; however, a minimum degree of agreement on what exactly an institution is must be reached before trying to measure them” (Voigt 2013, 2-3). But there are no indications that this will be achieved. Leading theorist Masahiko Aoki (2011, 20) recently acknowledged that “there does not seem to be an agreement” on “what institutions are.”

NIE scholars are not alone in presenting divergent formulations of institutions. Sociological and historical institutionalists also do not have shared conceptions of institutions (Hall and Taylor 1996), nor do economists interested in institutions who work outside of NIE. Competing definitions of institutions “range not only over how institutions function, or how they emerge and change, but extend to seemingly incommensurable definitions of what institutions actually are ... In all cases, institutions are of fundamental importance to economic analysis, yet their specific analytical nature remains a point of serious contention” (Potts 2007, 341-342).

Douglass North offered straightforward definitions of institutions and organizations. “Institutions are the rules of a game in a society or, more formally, are the humanly devised constraints that shape human interaction” (North 1990, 3). “Institutions include any form of constraint that human beings devise to shape human interaction” (1990, 4). As constraints, they structure human interaction, and can be formal (written rules, laws) or informal norms (customs, conventions, and other social norms). They can come about through deliberate creation or unplanned evolution, or a combination of both. Organizations, by contrast, are “groups of individuals bound by some common purpose to achieve objectives” (1990, 5) Organizations include political bodies (political parties, Congress, a city council, a regulatory agency), economic bodies (firms, trade unions, family farms, cooperatives), social bodies (churches, clubs, athletic associations), and educational bodies (schools, universities, vocational training centers) (North 1990, 5).

North (1990) posited this as the central framework for his analysis. Institutions define the rules of the game and organizations are the players. To discern the sources of rapid economic progress or stagnation, North asserted, requires close attention to the interaction between organizations and institutions. “Organizations are created with purposive intent in consequence of the opportunity set resulting from the existing set of constraints (institutional ones as well as the traditional ones of economic theory) and in the course of attempts to accomplish their objectives are a major agent of institutional change” (North 1990, 5).

When institutions are characterized in such broad terms – as complexes of constraining social norms – a vast range of disparate social phenomena is encompassed. This is evident in the analysis by Geoffrey M. Hodgson, who defines institutions “as systems of established and prevalent social rules that structure social interactions. Language, money, law, systems of weights and measures, table manners, and firms (and other organizations) are thus all institutions” (Hodgson 2006, 2).

Human social existence takes place on a background of shared norms that reflect and structure patterns of interaction, so defining institutions in terms of enabling and constraining norms pulls in almost all aspects of social life. That is why *language*, which is structured by norms and structures communication, is on Hodgson’s list. By Hodgson’s definition, *practices* like lawyering or conducting scientific research are institutions since they consist of socially transmitted bundles of norms, tacit knowledge, habits, and skills that enable and constrain activities.² *Reciprocity* is an institution because it is norm-governed and structures relationships of exchange. Similarly, every-day *conversations* are institutions since they are structured by conversational norms – “implicit rules and assumptions that are followed and made by speakers and that listeners assumes speakers follow” (Holbrook et al. 2000, 466). Shared *knowledge* – in so far as it is structured and conveyed through social rules as language is – constitutes institutions because it enables and constrains activities and contributes to structured patterns of behavior. Aoki (2011, 25) observes that “common knowledge in a substantive form of an institution induces a shared belief.” He calls this the “institution as-cognitive-media view” (2011, 25).

It takes a small additional step to assert that *shared mental constructs*, such as cognitive schemata (or mental models which shape and structure how people perceive the world and engage in social intercourse)³ that produce patterned conduct,⁴ are institutions. Arthur Denzau and Douglass North distinguished mental models from institutions by situating the former in the mind and the latter in the world: “The mental models are the internal representations that individual cognitive systems create to interpret the environment; institutions are the external (to the mind) mechanisms individuals create to structure and order the environment” (Denzau and North 1994, 4). This distinction does not hold up, however, when Denzau and North (1994, 4) go on to state that some “mental models are shared intersubjectively.” If mental models are intersubjective, then they are not *only* in the mind, but also have a rule-structured social existence that is shared and conveyed, like language. The authors add to the confusion when they immediately declare that “[i]deologies and institutions can then be viewed as classes of shared mental models”⁵ (1994, 4). Further muddying the matter, in a subsequent essay, North observed: “If we accept

² Social theorist Anthony Giddens (1984) construes institutions as socially recognized and produced routinized practices (for an over view of practices, see Turner 1994).

³ See David Dequech (2006, 479) discussing the cognitive approach to institutions in sociology, and Elinor Ostrom (2005, 1004-09) discussing mental models.

⁴ On mental models creating patterns of behavior, see Howard Gardner (1985, 385).

⁵ David Dequech (2002, 569) notes the apparent inconsistencies in their analysis.

the proposition that institutions exist to reduce uncertainty in human interaction, they are clearly an extension of the mental constructs the human mind develops to interpret the environment of the individual” (North 1995, 25). Building on North’s observation, Jack Knight (1997) suggested that institutions, as an aspect of culture, provide content for beliefs and structure cognitive processes.

The concept of institution thus ranges from language, to property rights, to a corporation, to mental models, and innumerable other phenomena. Under such an expansive view, it is not evident what social phenomena do *not* count as institutions. No wonder that insitutionalists generally (not limited to NIE scholars) believe institutions shape nearly everything people do. According to Walter Neale (1987, 1178), the consensus among insitutionalists is that “between 85 and 99 percent” of social action is governed by institutions. But if nigh everything in social life is an institution, when viewed from one angle or another, then one must question the analytical purchase of the concept.

Questions also exist about the connection between institutions and organizations. Institutions are structures of constraints in North’s account, whereas organizations are actors operating within these constraints. North acknowledges, however, that “for certain purposes we can consider organizations as institutions,” at least when viewed in terms of their internal structures rather than their macro-aspects as an organization (Hodgson 2006, 19, Appendix A). Both Hodgson and Neale include organizations among institutions, while other theorists insist that organizations must be distinguished from institutions (Khalil 1995).

According to Jason Potts, all institutionalist analyses accept that “[i]nstitutions [not only] *compose* the economy as markets, organizations and correlated behaviors, but also *constitute* the economy as the legal/social/political/cultural ‘rules of the game’ that define the space of economic opportunity” (Potts 2007, 342). Potts appears to be saying that institutions form the economy as the aggregate collection of markets, organizations and related behavior, and institutions form the rules that structure economic activities.

It bears a mention that Potts’s statement remains meaningful when the term “institution” is dropped from the equation. Markets, organizations, and correlated behaviors form the economy, and economic opportunities are structured by legal, political, social, and cultural activities and norms. That a term can be deleted with little information loss suggests it is empty in some sense. As I will elaborate shortly, the notion “institution” is a framing device – a way of grouping things for the purposes of analysis.

Why Conceptual Problems Cannot — and Need Not — Be Solved

The term “institution” has various references in different disciplines. The founders of institutional economics – Thorstein Veblen, Wesley C. Mitchell, John R. Commons – used the term institution in different ways (Neale 1987, 1177-1178). Walton Hamilton, who coined “institutional economics,” articulated an influential early definition. “Institution is a verbal symbol which for want of a better describes a cluster

of social usages. It connotes a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or customs of a people ... Institutions fix the confines of and impose form upon the activities of human beings” (Hamilton 1932, 84).

Among sociologists generally, institutions are seen as socially constructed features of the social landscape within which people conduct their daily activities – solid and constraining, as well as enabling, but subject to change when ideas and behaviors that give rise to existing institutions change (Rosenberg 2008, 111-115). For functionalist sociologist, Talcott Parsons (1966), institutions were central to the organization of society. “[T]he institutional structure of a social system ... is the totality of morally sanctioned statuses and roles which regulate the relations of persons to one another through ‘locating’ them in the structure and defining legitimate expectations of their attitude and behavior” (Parsons quoted Hamilton 1996, 163). Another prominent social theorist, Anthony Giddens, identified institutions as patterns of action manifested in interlinked social practices that endure over time and space and that are constructed by knowledgeable actors who draw on rules and resources in particular contexts of action. “The most important aspects of structure are rules and resources recursively involved in institutions. Institutions by definition are the more enduring features of social life” (Giddens 1984, 24).

Philosopher John R. Searle (2005) has developed an ontology of social institutions. Institutions involve collectively accepted status functions. “Status functions are the glue that holds human societies together. Think not only of money, property, government, and marriage, but also of football games, national elections, cocktail parties, universities, corporations, friendships, tenure, summer vacations, legal actions, newspapers, and industrial strikes” (Searle 2005, 9). Institutions have a common structure: *constitutive rules* (distinct from purely regulative rules) which specify that *X counts as Y in context C* (*X* refers to features of an object or person, *Y* is the assigned status with attendant functions, and *C* specifies when they attach) (Searle 2005, 7-10). Institutions create special powers “marked by such terms as: rights, duties, obligations, authorizations, permissions, empowerments, requirements, and certifications” (2005, 10). Practices are not institutions for Searle because they consist of regulative rules (not constitutive), and do not involve status functions. Thus, for example, the National Science Foundation is an institution, whereas the rules of scientific method or research practices are not.⁶

All these theorists describe institutions as stable patterns of action, and they all agree that institutions are important features structuring social action. Beyond these shared points, however, they each have a slant of their own, and these differences cannot all be reconciled. Why the differences?

⁶ John R. Searle (2005, 9) emphasizes that constitutive rules are particular types which, unlike regulative rules, “not only regulate but rather constitute the very behavior they regulate.” Searle (2005, 19) uses this to distinguish institutions from practices, which do not count as institutions (in his sense) because they involve regulative rules.

“Institutions” involve applying conceptual frameworks that analysts construct to study the social world, and the social world does not come pre-marked and labeled as such. Social life is a continuous flow of actions across time and space, whereby everything blends in an agglomeration of innumerable, constantly occurring, intentional and unintentional actions and intercourses. No part of this process stands still or exists in isolation. Patterns of social behavior are shaped by habits, customs, conventions, social rules, and norms. Social interaction is constructed by social instincts and biological needs, and it is tied to language, signs and symbols, cognitive schemata, heuristics, mental models, social typifications (formulae for everyday encounters), intersubjective understandings, ideas and ideologies, concepts, knowledge and beliefs, values, as well as practices and ways of doing things. Social interaction ranges from conversations, to sexual intercourse, to passing others on a crowded street, to driving on highways, to economic exchanges, to voting in elections, to millions of people watching a television show, to hundreds of millions of people clicking in on internet sites, and many other situations.

This social totality can be analytically sliced up in myriad alternative ways. Consequently, what counts as an institution depends on a given analyst. Scholars across and within academic fields do not agree on how to define institution because they bring various perspectives and objectives to the task.⁷

Similar unresolved disputes exist in other fields that study social phenomena. Anthropologists do not agree on how culture should be conceptualized – a mid-century study tallied 164 different meanings of “culture” used by anthropologists (Kroeber and Kluckhorn 1952, 291). Legal theorists have debated how to define law for centuries, with no agreement in sight. As renowned legal philosopher H.L.A. Hart remarked, “[f]ew questions concerning human society have been asked with such persistence and answered by serious thinkers in so many diverse, strange, and even paradoxical ways as the question ‘What is law?’” (Hart 1961, 1). There is no single true or scientifically correct concept of either “culture” or “law,” as well as many other terms used in social sciences. Concepts applied to examine various phenomena are analytical constructs, conceptualized in different ways because inquirers have different assumptions and goals.

The term “institution” is elusive in institutional economics for an additional reason. “What is an institution?” cannot be answered in the abstract. As Hamilton stated (1932, 84), “[i]nstitution is a verbal symbol which for want of a better describes a cluster of social usages.” Institution is a framing device that helps bring attention to particular *complexes* or *groupings* of patterns of action (Neale 1987, 1185). Beyond the sense that it involves interconnected clusters of usages, habits, customs, conventions, norms, and patterns of action, nothing specific is entailed in the notion.

It all depends on what one wants to frame for the purposes of a given inquiry. Certain NIE scholars (like North) present institutions as exogenous constraints, while others (like Aoki) construe them as endogenous rules because they wish to highlight

⁷ An informative essay on different perspectives within NIE is Francesca Gagliardi’s (2008).

different aspects in their analysis (Roland 2004, 111). Certain scholars can draw a sharp distinction between organizations and institutions, while others can include organizations within institutions. A single theorist can alter positions without contradiction, as North has done, by explicitly shifting the frame for the purposes of different explorations or analyses.

For these reasons, NIE scholars will not reach agreement on what institutions are, no matter how hard they try. The good news is that, although consensus is not possible, it is also *not necessary*. What matters are the factors that influence economic activities, regardless of whether the term “institution” is used to frame the relevant factors. (That was the point made earlier when “institution” was deleted from Potts’s statement with no loss of information.) A researcher can stipulate the parameters for the purposes of a given study – focusing on the relevant customs, legal rules, ideas, etc. – and cumulative or comparative knowledge can be gathered by applying the same parameters in future studies.⁸

Old Institutional Economics and Its Modern Descendants

“Old” institutional economics (OIE) and its contemporary proponents emphasize the dynamic holism of society (Medema, Mecuro and Samuels 2001). The emergence of institutional economics in the late nineteenth century was a reaction against the abstract formalism of neoclassical economics (Dorfman 1963; Wilber and Harrison 1978). Early institutional economists were influenced by the German historical school, which viewed economies, politics, law, culture, and technology as interconnected within a social totality that was continuously evolving (Dorfman 1963). Hamilton wrote about institutional economics: “It cannot stop short of a study of the conventions, customs, habits of thinking, and modes of doing which make up the scheme of arrangements which we call ‘the economic order’” (Hamilton 1919, 311). “We need constantly to remember that in studying the organization of economic activity in general as well as in particular, we are dealing with a unified whole which is in the process of development” (Hamilton 1919, 315). “Institutionalists conceived the economy to be part of an evolving whole – of a culture. So institutional economics is a cultural science in which the beliefs, values, and actions of individuals come from and make sense within a specific cultural whole” (Dugger 1990, 427). The stable aspect of institutions resists, circumvents, and absorbs change, while the flexible aspect of institutions allows and channels change. Existing institutions are altered in the course of this process, shaping new beliefs and patterns of behavior and creating new institutions, which are then buffeted by changes yet again, all in perpetual motion (Bush 1987).

Although both share a critical stance toward neo-classical economics, the thrust of NIE differs from that of OIE. To offer a rough distinction, NIE applies the

⁸ A similar argument is made in Walter C. Neale (1987), although he imposes restrictions on what counts as institutions.

bounded rational-actor view of individuals maximizing their interests within institutional constraints. OIE, on the other hand, tends to emphasize that institutions (viewed in broader cultural terms) shape individual perceptions, values, and choices, as well as constrain through rules (Dugger 1990; Hodgson 2000). Another angle on the difference is that NIE focuses on the constraining aspects of institutions, while OIE also highlights the enabling aspects of institutions (Neale 1987, 1178-1179).

Whereas these differences between the two branches of economic institutionalism generally hold, a number of leading NIE scholars have begun to consider the ways in which institutions shape values, motivations, goals, perceptions, and cognition (Dequech 2002). Not only does this bring NIE closer to OIE, but it also moves NIE closer to another branch of institutionalism that descended from OIE – sociological institutionalism (Stinchcombe 1997). “The sociological institutionalists tend to define institutions much more broadly than political scientists do to include, not just formal rules, procedures or norms, but the symbol systems, cognitive scripts, and moral templates that provide the ‘frames of meaning’ guiding human action” (Edeling 1998; Hall and Taylor 1996, 947). Sociological institutionalists place greater emphasis on the ambiguity and flexibility of norms and pay greater attention to power than NIE scholars typically do (Hall 2009), but both recognize the importance of cultural factors.

The respective orientations and interests of NIE, OIE, and sociological institutionalists remain apart, but the crucial point is that, when NIE scholars began to look deeper into institutions, they were led in a direction that heretofore has been explored by sociologists, psychologists, and anthropologists, but not economists. Getting a handle on customs, norms, values, culture, and cognition is far more complicated than positing bounded rational actors strategically pursuing their goals within institutional constraints. Consider Hamilton’s depiction of the challenge:

Thus an institution like the living thing it is has a tangled identity. It cannot be shown in perspective or revealed in detail by the logical method of inclusion and exclusion. It holds within its actuality the vestiges of design and accident, the stuff of idea and custom, from many ages, societies, civilizations and climates of opinion. In any important group of institutions, such as marriage, property, the market or law, there are to be discovered as inseparable aspects of an organic whole notions, procedures, sanctions and values hailing from cultural points far apart ... An institution is an aspect of all that it has met, a potential part of all that it will encounter. It holds many unknown possibilities which a suitable occasion may kindle into life. (Hamilton 1932, 88)

NIE scholars must pay a price for their more comprehensive view of economic activities. Formal models, rational actor analysis, and game theory can be precise because they involve abstractions, although abstract models leave out much of reality. Economists can bring insights to bear from history, sociology, anthropology, psychology, organization theory, and other social sciences to understand economic

development. These fields, however, have their own disagreements over core concepts, and their own imprecisions resulting from complexity of their subject matter and the application of different theoretical and methodological assumptions. A holistic, dynamic, cultural perspective on economic activities requires attention to social phenomena that are less amenable to the standard tools of economics (Hodgson 2000; Samuels 2003; Wilber and Harrison 1978). The messy, interconnected, ever shifting social world will not yield to the desire of NIE scholars to map and measure everything, and render reliable predictions. In the next section, I demonstrate how this affects their work in multiple ways.

Challenges of Mapping, Measuring, and Changing Culture

Economic and legal institutions, Oliver Williamson (2000, 596) observes, operate within a fundamental “social embeddedness level. This is where the norms, customs, mores, traditions, etc. are located” (see also, Granovetter 1985). Most of what circulates at this informal level of social existence comes about gradually over long periods of time in an unplanned fashion, not designed by anyone or subject to direct control by anyone. This level is critically significant because it conditions and influences the performance of formal legal and governmental institutions as well as economic development. But, it is also the hardest to fully perceive and to change in desired ways. North elaborates:

It is the admixture of formal rules, informal norms, and enforcement characteristics that shapes economic performance. While the rules may be changed overnight, the informal norms usually change only gradually. Since it is the norms that provide “legitimacy” to a set of rules, revolutionary change is never as revolutionary as its supporters desire, and performance will be different than anticipated. And economies that adopt the formal rules of another economy will have very different performance characteristics than the first economy because of different norms and enforcement. (North 1994, 366)

The fact that transplanted formal rules function differently, and often dysfunctionally owing to surrounding social factors, was well known in the 1960s and 1970s among legal anthropologists and law and development scholars. “In view of the recognition of the law’s dependence upon the rest of the culture in which it exists,” wrote Leopold Pospisil (1971, 130), “it amounts almost to folly to think that a legal system of one nation can be easily transplanted into another culture and applied to another society.” Robert Seidman explained: “In acting, individuals take some account of the constraints and incentives offered by the law. They also take into account a host of non-legal factors. A particular law in two places with different social, political, economic and other circumstances can therefore only by coincidence induce similar behavior in both places” (Seidman 1978, 35-36). Lawrence Friedman coined the phrase “legal culture” – meaning, views about law circulating within society – to help explain why legal transplantation seldom works as intended. “It is perfectly

possible, then, for identical structures to perform very different functions ... The legal culture provides fuel for the motor of justice; social values and attitudes fill in the missing elements needed to explain uses, nonuses, misuses, and abuses of legal process and the legal system” (Friedman 1969a, 29; see also 1969b). Along the same lines, political scientists in the nineteen sixties identified problematic “political cultures” as the explanation for the dysfunctions of political institutions in developing societies (Pye 1968; Pye and Verba 1965).

To get a sense of how rules, mores, customs, and culture affect legal and economic behavior one must look closely at actual settings. Elinor Ostrom engaged in a herculean effort to construct a typology of informal and formal rules and rule configurations, with nested sets of sub-rules (Ostrom 2005a; Ostrom 2005b). For the market, she identified seven categories of rules, each of which contains a “large number of” versions and can be combined in countless possible configurations. “At least 27 different boundary rules,” just one category, were found in common pool resource locations alone (Ostrom 2005b, 836). In addition, for action settings, Ostrom identified layered levels of “operational rules,” “collective-choice rules,” and “constitutional-choice rules,” each containing an untold number of variations of rules and potential configurations (2005b, 841-844).

The main benefit of her elaborate theoretical scheme is that it highlights possible links between formal and informal norms. Beyond that, its use value is questionable because every situation has a unique mix. The relevant norms at play in a given situation must be identified, evaluated in terms of adherence (how often followed, circumstances of departure), and their actual impact traced out. (How can informal norms be measured?) Relations and interaction between these norms, other informal institutions in that arena, the formal legal system, and economic activities, must be observed. One must also look at the various specific actors in the social arena: their strategic interests; their degree of social, economic, and political power; their ideological commitments, and the way they view the rules (legitimate, illegitimate, facilitative, a nuisance, etc.).

Every step raises daunting challenges, as Ostrom recognized. “When new and unanalyzed situations are created by the process of changing parts of a rule configuration, institutional analysis needs to proceed to undertake a deeper analysis of how participants view the rules, how they come to understand them, how they will be monitored and enforced, and what types of individual actions and collective outcomes are produced. This is frequently a challenging, difficult, and complex theoretical and empirical task” (Ostrom 2005b, 845). To call this challenging is an understatement. Anthropologists frequently seek to provide accounts of participants’ understandings in given settings. Various participants, however, might have inconsistent, incomplete, and erroneous perceptions of the situation, and the interpretations produced by anthropologists are contestable and not subject to rigorous testing through verification. Now NIE scholars are called upon to complete these tasks.

Oliver E. Williamson (2000) acknowledged in his overview of the field that NIE scholars had done the least research on the informal social embeddedness level, concentrating instead on the impact of formal legal institutions and governance

structures on economic activities (2000, 610 and 608). The 850 page *Handbook of New Institutional Economics* (Menard and Shirley 2005), as one reviewer noted, focuses almost entirely on formal institutions, neglecting “arenas of social and economic life in which rules are ambiguous, implicit, or informal. In particular, it leaves understudied the very important issue of the interplay between formal and informal rules” (Carruthers 2006, 497). Informal institutions are neglected despite their acknowledged importance, one can surmise, because it is a daunting challenge for NIE researchers to pin them down using standard methodological techniques.

While they have largely eschewed close study of informal norms, NIE scholars have attempted to show links between culture, governance, and economic development in broad terms (Guiso, Sapienza and Zingales 2006). The basic approach is to rely on cross-cultural surveys that measure values within societies, and observe how they fare in relation to good governance (rule of law, low corruption, democracy) or economic measures. A study by Amir Licht Chanan Goldschmidt, and Shalom Schwartz, for example, looked at a number of cultural dimensions – embeddedness vs. autonomy, hierarchy vs. egalitarianism, and mastery over nature vs. harmony – finding that cultures higher on autonomy and egalitarianism correlate to higher governance measures (Licht, Goldschmidt and Schwartz 2007). Another study by Guido Tabellini (2010) used surveys that measured trust, sense of individual control over one’s circumstances, respect (positive values), and obedience (negative value), to show that societies higher on positive values and lower on negative values display higher growth. Along similar lines, development scholars and political scientists believe that cultures encouraging delayed gratification, thrift, hard work, discipline, and investment in childhood education, tend to do better economically than cultures lacking these values (Tamanaha 2011, 213). As the economic historian David Landes (2000, 2) declared, “if we learn anything from the history of economic development, it is that culture makes almost all the difference.”

Scholars can be convinced of the importance of culture, but without knowing precisely how culture matters and without being able to apply this knowledge. Values are tricky to measure, particularly the degree of intensity with which they are held. Surveys, asking people a series of questions in an artificial setting, are removed from how values play out in actual behavior, when something concrete is at stake and people must evaluate tradeoffs and consequences. Owing to the “subjective and imprecise” qualities of surveys and the gap between stated opinions and actual behavior, it is not clear how confident one can be that they accurately measure what they purport to measure (Roland 2004, 114). In addition, there are always issues with study design and consistency across societies, such as how questions are formulated and presented, how people from different cultures and levels of education respond to hypotheticals, and whether different age groups, genders, education levels, economic classes, and cultural groups within society are accounted for separately.

There are additional well-recognized difficulties. It is exceedingly hard to determine whether correlations reflect causation. Moreover, assuming that a causal link exists, one must also determine in which direction the causal arrow runs. Do cultural traits lead to good governance that, in turn, enhances economic

development, or does economic development promote good governance and encourage supportive cultural traits, or are there mutually influencing feedback loops (Glaeser et al. 2004)? Furthermore, showing correlation between culture and economic performance does not identify what explains it. As Tabellini acknowledges, the traits associated with higher economic performance might be related to propensity to innovate or take risks, or to work hard, or some other possibility. It does not reveal whether these cultural traits “influence economic development directly, or indirectly through the functioning of current institutions” (Tabellini 2010, 709, 711).

Perhaps, with supreme ingenuity and unlimited funding, further studies can be designed to tease out these issues, showing specific avenues of causation between identified cultural traits and economic development. That still leaves the separate task of determining how to operationalize this finding for the purposes of application. Let us grant that trust, respect, and a sense of personal control facilitate economic development or that belief in autonomy, egalitarianism, and mastery over nature cause better governance. How does one increase these values in societies that lack them? Licht, Goldschmidt, and Schwartz (2007, 862) assert that “[t]he present findings may have significant implications for development projects around the world and, in particular, for institutional reform programs.” That is not correct. Without knowing how to engineer cultural change, their study has zero implications for reform programs because it provides no guidance on what should be done to increase those values. The problem is further complicated because we cannot graft a cultural trait from elsewhere and expect the same results. Owing to uniqueness and the interconnectedness of society, any attempt to change any set or mix of informal norms, values, or cultures, will cause everything to interact in unpredictable ways with everything around it.

Contemporary scholars who study legal development came to the same conclusion – culture is key. They also arrived at the same impasse. Programs aimed at building courts and training police are not enough to build the rule of law because surrounding formal and informal institutions necessary for their proper operation are lacking. “The rule of law is not something that exists ‘beyond culture’ and that can be somehow added to an existing culture by the simple expedient of creating formal structures and rewriting constitutions and statutes. In its substantive sense, the rule of law is a culture” (Brooks 2003, 2285). It would appear to follow therefrom that law and development efforts should try to promote a culture of respect for the law (Cao 2007). The question is: How? An education program to indoctrinate children to respect the law, or media campaign to persuade the populace of the same, will not take hold in societies where people avoid, fear, or despise the law because it is incompetent, vicious, or corrupt. Trust and respect are earned. If law works well, people will respect it. Law works best when people respect it. Functioning well and being respected emerge and endure together (Tamanaha 2011). That is the interconnectedness of society.

There is a final crucial question left unaddressed by these studies. Any reformers who set out to change a culture in the direction suggested by Licht, Goldschmidt, and Schwartz’s study must also consider the harms that might result. Cultures are webs of

ideals, beliefs, and actions. Collectivism enhances social solidarity, which might diminish when the level of individualism increases, and boosting the cultural sense of mastery over nature – decreasing the sense of harmony – might disrupt the resource-ecological balance of society. Cherished values with functional benefits that might be lost in efforts to engineer a culture change must be considered against presumed gains. This, however, is all unknowable.

The Limits of the Knowable and Achievable

Elinor Ostrom's Nobel Prize lecture describes decades of struggling to get a handle on "the immense diversity of situations in which humans interact" (Ostrom 2010, 645). She recounts her effort to catalogue and examine rules in the hope of finding some that work across different settings, but finally "had to give up the idea that *specific* rules might be associated with successful cases" (2010, 652). A variety of combinations of informal and formal rules can work, Ostrom found, and sometimes property regimes are successful in meeting social goals, but sometimes they are not (2010, 656-659). She concludes:

The most important lesson for public policy analysis derived from the intellectual journal I have outlined here is that humans have a more complex motivational structure and more capability to solve social dilemmas than posited in earlier rational-choice theory. Designing institutions to force (or nudge) entirely self-interested individuals to achieve better outcomes has been the major goal posited by policy analysts 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. We need to ask how diverse polycentric institutions help or hinder the innovativeness, learning, adapting, trustworthiness, levels of cooperation of participants, and the achievement of more effective, equitable, and sustainable outcomes at multiple scales ... When the world we are trying to explain and improve, however, is not well described by a simple model, we must continue to improve our frameworks and theories so as to be able to understand complexity and not simply reject it. (Ostrom 2010, 665)

Ostrom's essay covers a series of confounded expectations and disproved assumptions, brought down by the rich uniqueness of each social context, but in the end she urges more research on how to build institutions that bring out the best in people. What constitutes "best in humans," however, is a value question that varies by culture and setting, and we have no idea how to create supportive informal institutions. Truly appreciating social complexity would compel acceptance that what she seeks is unobtainable.

Friedrich Hayek (1973, 13) placed great emphasis in his economic theory on "ignorance of particular facts." "This structure of human activities constantly adapts

itself, and functions through adapting itself, to millions of facts which in their entirety are not known to anybody” (1973, 13). Hayek directed this observation at socialism, showing the inadequacy of central planning, but his admonition applies fully to social scientists attempting to discern how norms, customs, and mores affect legal institutions and economic development, as well the effort to design and implement institutions to achieve desired changes.

Standing in the way of NIE objectives is not just the inability to know enough – the ultimate barrier is the human agent. Subjectively held beliefs have causal effects on social interaction. People pursue their projects in socially structured contexts, acting on beliefs and reacting to changes that, in turn, potentially alter the setting in subsequent moments, multiplied across the social arena over time. A great deal of social interaction is based on predictions by actors (informed by surrounding norms) about what other social actors are thinking and how they will respond – predictions which can be mistaken. Assumptions, beliefs, and calculations that people make can be incomplete or incorrect. Feedback alters the beliefs of some actors, but not others, in unpredictable ways. Episodes of anger, passion, or irrational behavior are common. Unanticipated consequences abound.

Social interaction is thus dynamic, reflexive, and prone to unanticipated consequences. Only broad generalizations can be formulated about social behavior, with uncertain future application, because the conditions on which these generalizations were based are always subject to change. Anthony Giddens wrote:

That there are no known universal laws in social science is not just happenstance. If it is correct to say, as I have argued, that the causal mechanisms in social scientific generalizations depend on actors’ reasons, in the context of a mesh of intended and unintended consequences of action, we can readily see why such generalizations do not have a universal form. For the content of agents’ knowledgeability, the question of how “situated” it is and the validity of the propositional content of that knowledge – all these will influence the circumstances in which those generalizations hold. (Giddens 1984, 345)

Hayek’s admonition that complete knowledge of relevant facts is unobtainable and Giddens’s reminder that social circumstances are constantly subject to change, owing to the human element, defeat the mapping, measuring, and policy goals of NIE scholars. It is not possible to develop a complete understanding of how formal and informal institutions influence one another because the social arena is too complex and each situation is unique and constantly moving. Policy prescriptions suffer for the same reasons.

With its emphasis on holistic evolutionism and the economic system as a cultural process, OIE has a greater appreciation of the hurdles. Thorstein Veblen and Clarence Ayers emphasized that technological development – driven by the human proclivity for workmanship and curiosity – takes place within existing value structures and patterns of behavior, inciting reactions that strive to maintain past power and resources as well as efforts to secure control going forward (Bush 1987). This process

of “cumulative causation” ripples through the social-economic-cultural-political fabric, with each change prompting further changes in ways that are unpredictable because outcomes turn on interlinked complexes of habits, customs, and ideological and political factors (particularly power) that are contingent. Until events occur, one cannot tell whether a given innovation will be absorbed within existing institutions or will transform them (or some degree of both), thereafter setting off another round of reactions. Hamilton characterized the economic system as always in a state of “becoming,” “not so much an interesting group of real things as a curious stream of tendencies” (Hamilton 1919, 315-16). The dynamic perspective of OIE, in which nothing is fixed, and the present and future shape of things are contested, counsels humility about the knowable.

North (1990, 104) recognized that “long-run economic change is the cumulative consequence of innumerable short-run decisions by political and economic entrepreneurs.” Entrepreneurs in social arenas rely on subjective mental models of their environments and guess about the likely outcomes of prospective courses of action. “Because the models reflect ideas, ideologies, and beliefs that are, at best, only partially refined and improved by information feedback on the actual consequences of the enacted policies, the consequences of specific policies are not only uncertain but to a certain degree unpredictable” (North 1990, 104).

A double layer of potentially erroneous knowledge and models exists: those of actors themselves (making the outcomes of their actions unpredictable), and those of social scientists (making the outcomes of their policy prescriptions unpredictable). North later reflected that “as someone who has ‘played God’ in attempting to improve performance of transition and third world economies I have been made acutely aware of the shortcomings in our understanding of how to set them right which means in the first instance creating a political-economic structure that will lead to an improvement in their performance” (North 2005, 67-68). Duly chastened but apparently undeterred, North ended his book with yet another call for greater understanding of the institutional framework to help design policies to enhance development (2005, 162-165).

A summary of what stands in the way shows the cumulative magnitude of the barriers. There are incalculable numbers of possible norms and configurations. Measuring informal norms and culture through observation or surveys raises major issues of design and reliability. Correlations do not show causation or the direction of the causal arrow. General findings must be tailored to account for each context of application. We do not know how to build or mold informal norms. We do not know how to produce desired cultural change. Institutions transplanted from elsewhere will operate differently owing to surrounding factors in ways that cannot be anticipated in advance. It is not possible to know and calculate the harm a culture change might cause to positive aspects of a culture. It is impossible to know all relevant factors – including potentially erroneous beliefs of actors – or the full range of reactions an initiative will provoke. Unanticipated consequences inevitably arise. Social intercourse is connected through action and ideational threads that reach into other dimensions of the social arena which may not be visible. Social life is continuously moving. Each situation is unique.

On top of these intractable hurdles is additional uncertainty owing to potential shocks to the economy and polity, such as natural disasters, conflict among ethnic or religious groups, unstable or aggressive neighboring countries with spill-over effects, large scale inward and outward migration, externally produced rise in energy or food prices, severe pollution from internal and external sources, depletion of natural resources, transformative technological discoveries, devastating accidents, regional or global recessions, and so on.

With these barriers in mind, consider Gerard Roland's statement of remaining challenges for NIE:

A major empirical challenge is to disentangle the relative importance of different institutions: the quality of the legal system and of law enforcement; the quality and integrity of the bureaucracy; the nature of the political regime, electoral rules, and the degree of federalism; social capital; and social norms and values. Ideally we would be able to measure the separate effects of different institutions or the joint effect of a subset of institutions, but this task is not easy. First of all, ... many institutions are strongly correlated ... A bigger obstacle than correlation is the identification problem; institutions are usually not exogenous but may themselves be the product of other institutional constellations. Are legal arrangements causing social norms, or is it the other way around? Considerable craftsmanship and innovation in datasets will be required to find adequate estimation strategies to tackle those questions. (Roland 2004, 114)

If Roland means to suggest that it is possible to determine the relative importance of institutions in a general sense that applies everywhere, this is incorrect because each situation has a unique constellation of formal and informal institutions. Many developing countries, for example, have a mix of transplanted state legal institutions and non-state legal institutions (tribal courts, elders, religious courts, etc.), with no two mixes alike, and these situations are far different from advanced economies of the global north, where law and society evolved together (Tamanaha 2008).

More to the point, the juxtaposition of Roland's proposed task against the knowledge barriers mentioned above should be enough to suggest that it cannot be done. Yet, as NIE scholars are wont to do, Roland holds out hope that statistical ingenuity can solve it.

Echoing NIE scholars, Avinash Dixit, in his 2009 Presidential Address to the American Economic Association, called for research "to combine many disciplinary perspectives – economics, history, political science, sociology, psychology, anthropology, law, and evolutionary biology – and use many methodologies – cases studies and analytic narratives, statistical empirical studies, and theoretical modeling using both rational choice and behavioral approaches" (Dixit 2009, 20). This is laudable, and much will be learned from interdisciplinary exchange.

When all is said and done, however, and all the regressions have been run, recommendations for reform produced by this cross-fertilization will look much like those Dixit (2009, 20-21) already articulated in his lecture. To investors and traders in less developed countries, he recommended close attention to informal institutions and relationships and finding a local partner with established ties. To policy advisors, he cautioned that they must understand the current institutional equilibrium and, before they try to replace institutions, they should assume that current institutions have some functional benefits. To policymakers, he advised that there are many models from which to choose, and they should make their own choice in terms of what best fits their unique situation. Dixit's advice echoes the policy implications laid out by Roland at the completion of his overview. Roland (2004) counseled skepticism about transplanting institutions, suggesting that building on existing institutions is more likely to succeed. Ronald encouraged gradualism, experimentation, proceeding down multiple tracks, and monitoring results, and he rejected "one-size-fits-all" approaches, drawing instead on local knowledge and engaging in dialogue among local stakeholders (Roland 2004, 125-128). Both Dixit and Roland offer sound pragmatic advice that is echoed by many others in development work and research.

General rules of thumb that urge tailoring to local conditions are the most one can expect by way of useful policy recommendations. Advice along the same lines was given decades ago in legal development, and the same will be repeated decades hence. The interconnectedness of society, ignorance of particular facts, reflexive dynamism of human social behavior, and uniqueness of every situation, do not allow more precise policy prescriptions for institutional reform of broad application.

Conclusion

NIE scholars are well aware of the overwhelming complexity they confront. Nonetheless, time and again they hold out hope that further studies will finally solve mapping and measuring problems, and produce support for specific policy recommendations (see, for example, Brousseau, Garrouste and Raynaud 2011). This is a chimerical quest. The most ambitious knowledge and policy goals NIE scholars are pursuing cannot be achieved practically and in principle. This conclusion may irritate scholars in the field as prematurely negative and blind to the promise of improvements in econometric techniques and computing capacity that lie ahead. However, it is not defeatist, but realistic to recognize insurmountable limitations, awareness of which helps focus attention on what can be achieved.

Two clarifications are necessary in closing to avoid any misunderstanding of this essay. First, to criticize the mapping, measuring, and policy aspirations of NIE scholars – particularly in connection with the informal realm – is not in itself a criticism of the work in the field. Historical and case studies, field experiments and statistical studies, strategic actor and game theory analyses, and other explorations by NIE scholars of the role that formal and informal institutions have on economic activities, are enlightening and help present a more sophisticated understanding of the economy and society. Although I have offered multiple reasons to doubt the efficacy of

designed institutional changes – particularly those aimed at informal institutions – it does not follow that nothing can or should be done to improve economic performance. Efforts to reform legal, political, and economic institutions are essential and should continue. What follows from this essay is that working to solve specific problems with locally tailored solutions is likely to be more fruitful than proposing grand institutional designs. The ultimate message of this essay is that humility about what can be known and done is the best stance to take when confronted with the interconnectedness and dynamism of social life.

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