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What Are Institutions?

Geoffrey M. Hodgson

The use of the term *institution* has become widespread in the social sciences in recent years, reflecting the growth in institutional economics and the use of the institution concept in several other disciplines, including philosophy, sociology, politics, and geography. The term has a long history of usage in the social sciences, dating back at least to Giambattista Vico in his *Scienza Nuova* of 1725. However, even today, there is no unanimity in the definition of this concept.

Furthermore, endless disputes over the definitions of key terms such as *institution* and *organization* have led some writers to give up matters of definition and to propose getting down somehow to practical matters instead. But it is not possible to carry out any empirical or theoretical analysis of how institutions or organizations work without having some adequate conception of what an institution or an organization is.

This paper proposes that those that give up are acting in haste; potentially consensual definitions of these terms are possible, once we overcome a few obstacles and difficulties in the way. It is also important to avoid some biases in the study of institutions, where institutions and characteristics of a particular type are overgeneralized to the set of institutions as a whole. This paper outlines some dangers with regard to an excessive relative stress on self-organization and agent-insensitive institutions.

This paper draws on insights from several academic disciplines and is organized in six sections. The first three sections are devoted to the definition and understanding of institutions in general terms. The first section explores the meaning of key terms such as *institution*, *convention*, and *rule*. The second discusses some general issues concerning how institutions function and how they interact with individual agents, their habits,

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and their beliefs. The third examines the difference between organizations and institutions and what may be meant by the term *formal* when applied to institutions or rules, by focusing on some of Douglass North's statements on these themes. The fourth identifies an excessive bias in the discussion of institutions toward those of the self-organizing type, showing theoretically that these are a special case. The fifth argues that institutions also differ with regard to their degree of sensitivity to changes in the personalities of the agents involved. Finally, the sixth concludes the essay.

On Institutions, Conventions, and Rules

Institutions are the kinds of structures that matter most in the social realm: they make up the stuff of social life. The increasing acknowledgement of the role of institutions in social life involves the recognition that much of human interaction and activity is structured in terms of overt or implicit rules. Without doing much violence to the relevant literature, we may define *institutions* as systems of established and prevalent social rules that structure social interactions.[1] Language, money, law, systems of weights and measures, table manners, and firms (and other organizations) are thus all institutions.

Following Robert Sugden (1986), John Searle (1995), and others, we may usefully define a convention as a particular instance of an institutional rule. For example, all countries have traffic rules, but it is a matter of (arbitrary) convention whether the rule is to drive on the left or on the right. So in regard to the (say) British institutional system of traffic rules, the specific convention is to drive on the left.[2]

At some stage we need to consider how institutions structure social interactions and in what senses they are established and embedded. In part, the durability of institutions stems from the fact that they can usefully create stable expectations of the behavior of others. Generally, institutions enable ordered thought, expectation, and action by imposing form and consistency on human activities. They depend upon the thoughts and activities of individuals but are not reducible to them.

Institutions both constrain and enable behavior. The existence of rules implies constraints. However, such a constraint can open up possibilities: it may enable choices and actions that otherwise would not exist. For example: the rules of language allow us to communicate; traffic rules help traffic to flow more easily and safely; the rule of law can increase personal safety. Regulation is not always the antithesis of freedom; it can be its ally.

As Alan Wells (1970, 3) put it, "Social institutions form an element in a more general concept, known as social structure." The original institutional economists, in the tradition of Thorstein Veblen and John R. Commons, understood institutions as a special type of social structure with the potential to change agents, including changes to their purposes or preferences.

However, some institutionalists such as John Fagg Foster (1981, 908) have misleadingly defined institutions as "prescribed patterns of correlated behavior."[3] Defining

institutions as *behavior* would mislead us into presuming that institutions no longer existed if their associated behaviors were interrupted. Does the British monarchy cease to exist when the members of the royal family are all asleep and no royal ceremony is taking place? Of course not: royal prerogatives and powers remain, even when they are not enacted. It is these powers, not the behaviors themselves, which mean that the institution exists. Nevertheless, such powers may lapse, and institutional dispositions may fade, if they are not exercised with sufficient frequency. Furthermore, the only way in which we can observe institutions is through manifest behavior.[4]

Not all social structures are institutions. Social structures include sets of relations that may not be codified in discourse, such as demographic structures in animal species or in human societies before any understanding of demography. Demographic structures may limit social potentialities in terms of the number of infants or elderly requiring care and the number of able-bodied adults available to care, produce, and procreate. But they do not necessarily do this through the operation of rules.[5]

The term *rule* is broadly understood as a socially transmitted and customary normative injunction or immanently normative disposition, that in circumstances X do Y.[6] A prohibition rule would involve a large class of actions Y, from which the prohibited outcomes are excluded. Other rules may involve requirements to perform a smaller class of actions in Y. A rule may be considered, acknowledged, or followed without much thought. The phrase *immanently normative* requires that if the rule is scrutinized or contested, then normative issues will emerge.

The term *socially transmitted* means that the replication of such rules depends upon a developed social culture and some use of language. Such dispositions do not appear simply as a result of inherited genes or instincts; they depend upon contingent social structures and may have no direct or obvious representation in our genetic makeup.

Rules include norms of behavior and social conventions as well as legal rules. Such rules are potentially codifiable. Members of the relevant community share tacit or explicit knowledge of these rules. This criterion of codifiability is important because it means that breaches of the rule can be identified explicitly. It also helps to define the community that shares and understands the rules involved.

The normative aspect of a rule would not be so relevant, and would have no compelling reason to be passed on from generation to generation, if physical and natural circumstances allowed only one option Y* in circumstances X. If we were compelled by the laws of nature to do Y* in circumstances X, then there would be no need for normative compulsions or sanctions. In contrast, multiple options can typically be imagined for the form of a rule. One culture may uphold in circumstances X do Y; another may require in circumstances X do Z. Nevertheless, the laws of nature constrain the set of possible rules that may be formulated. A feasible rule cannot ask us to defy the laws of gravity or to become Julius Caesar. The set of possible rules can be enlarged by technological and other institutional developments. For example, the technology of writing makes feasible the rule that a valid contract on paper must be signed.[7]

As Searle (1995, 2005) has argued, the mental representations of an institution or its rules are partly constitutive of that institution, since an institution can exist only if people have particular and related beliefs and mental attitudes. Hence an institution is a special type of social structure that involves potentially codifiable and (evidently or immanently) normative rules of interpretation and behavior. Some of these rules concern commonly accepted tokens or meanings, as is obviously the case with money or language. However, as Max Weber pointed out in 1907, some rules are followed "without any subjective formulation in thought of the 'rule'" (1978, 105). For example, few of us could specify fully the grammatical rules of the language that we use regularly or completely specify in detail some practical skills. Nevertheless, institutional rules are in principle codifiable, so that breaches of these rules can become subjects of discourse.

Even with this criterion of potential codifiability, a problem arises as to how far we can stretch the meaning of the term *rule* in the definition of an institution. Friedrich Hayek (1973, 11), for example, emphasized that "[m]an is as much a rule-following animal as a purpose-seeking one." However, his notion of a rule was extremely broad. For Hayek (1967, 67) the term *rule* is "used for a statement by which a regularity of the conduct of individuals can be described, irrespective of whether such a rule is 'known' to the individuals in any other sense than they normally act in accordance with it." Hayek (1979, 159) entertained rules that emanate from the "little changing foundation of genetically inherited, 'instinctive' drives" as well as from reason and human interaction. For Hayek, therefore, a rule is any behavioral disposition, including instincts and habits, which can lead to "a regularity of the conduct of individuals."

This excessively broad definition would include such behavioral regularities as breathing or the pulsation of the heart. This stretches the notion of rule following to unacceptable extremes (Kley 1994). Despite Hayek's general emphasis on purposeful behavior and his rejection of behaviorist psychology, Hayek ended up with a definition of *rule* that hinges solely on behavioral regularities, here neglecting the ontology of rules and the mechanisms involved in their creation and replication.

Essentially, social rules are replicated through mechanisms other than the genes. However, while rules are not in the DNA, it would be a mistake to go to the other extreme and regard rule following as something entirely deliberative. Michael Polanyi (1967) argued convincingly that there is always and unavoidably a tacit substratum of knowledge that can never be fully articulated, even with the most deliberative of acts. Rules, to be effective in the social context, can never be purely or fully matters of conscious deliberation.

The tacit dimension of knowledge creates a problem when we attempt to draw the line between instinctive, or autonomic, behavioral regularities on one hand and genuine rule following on the other. Some authors refer to the latter but not the former category of behavior as "intentional." A problem here is that the concept of intentionality is sometimes stretched to cover cases of behavior that are not deliberative (e.g., Bhaskar 1989; Searle 1995; Lawson 1997). Arguing that such an unconscious "intentional" state

"has to be in principle accessible to consciousness" (Searle 1995, 5) creates boundaries for this enlarged concept of intentionality but extends its territory to some autonomic or instinctive behaviors, such as breathing and blinking (but not heartbeats), which to some degree on some occasions can be placed under conscious control. Searle's criterion would thus suggest that breathing and blinking were always intentional.[8]

An alternative strategy, preferred by the present author, consists of two elements. First, the concept of intentionality is reserved for conscious prefiguration and self-reflexive reasoning, with regard to future events or outcomes. As Hans Joas (1996, 158) put it, intentionality "consists in a self-reflective control which we exercise over our current behavior." Unintended acts lack any such conscious deliberation and prefiguration. Second, rules are regarded as socially or culturally transmitted dispositions, with actual or potential normative content. An often serviceable test of socio-cultural rather than genetic transmission is the potential or actual existence of very different rule systems, even in similar natural environments.

Raimo Tuomela (1995) made a distinction between rules and norms, depending on the manner of their enforcement. To establish this, he developed a notion of collective intentionality similar to that of Searle (1995).[9] Collective intentionality arises when an individual attributes an intention to the group in which he or she belongs while holding that intention and believing that other group members hold it, too. We act thus because we believe that others have a similar aim. Clearly, many behavioral regularities develop in society because of such reciprocating intentions and expectations. Tuomela described such regularities as norms. They involve a network of mutual beliefs rather than actual agreements between individuals. Norms involve approval or disapproval. In contrast, for Tuomela, rules are the product of explicit agreement brought about by some authority, and they imply sanctions. Rules and norms thus differ by virtue of the different ways they enforce tasks on individuals.

However, such a hard and fast distinction is difficult to maintain. Reciprocating mutual beliefs become explicit agreements with the addition of single and shared signs or words of assent. Some behavioral regularities may emerge originally without external enforcement, but later some external authority may impose sanctions. The difference between such enforced sanctions and the perceived threat of disapproval by others is eroded when one considers that both involve some discomfort for the individual concerned. Sugden (2000) went further down this road, arguing that both are explicable in terms of preferences alone. But even if we reject the utilitarian conflation of values and preferences, neither external sanctions nor social disapproval is devoid of questions of value. External sanctions and laws have a capacity to promote their own moral authority, and their transgression may also involve social disapproval. People thus obey laws not simply because of the sanctions involved but also because legal systems can acquire the force of moral legitimacy and the moral support of others.

On How Institutions Work

Generally, how do people understand rules and choose to follow them? We have to explain not only the incentives and disincentives involved but also how people interpret and value them. This appreciation and valuation of rules is unavoidably a process of social interaction. As Ludwig Wittgenstein (1958, 80) pointed out, "a person goes by a sign-post only in so far as there exists a regular use of sign-posts, a custom."

Such considerations are important when we address the special case of legal rules. For laws to become rules in the sense discussed here, they have to become customary. As discussed later in this essay, there are examples of laws that are widely ignored and have not acquired the customary or dispositional status of a rule. Ignored laws are not rules. For new laws to become rules, they have to be enforced to the point that the avoidance or performance of the behavior in question becomes customary and acquires a normative status.

Institutional economists in the Veblenian tradition, and modern and original pragmatist philosophers, argue that institutions work only because the rules involved are embedded in shared habits of thought and behavior (James 1892; Veblen 1899; Dewey 1922; Joas 1993, 1996; Kilpinen 2000). However, there has been some ambiguity in the definition of *habit.* Veblen and the pragmatist philosophers regarded habit as an acquired proclivity or capacity, which may or may not be actually expressed in current behavior. Repeated behavior is important in establishing a habit. But habit and behavior are not the same. If we acquire a habit we do not necessarily use it all the time. A habit is a disposition to engage in previously adopted or acquired behavior or thoughts, triggered by an appropriate stimulus or context.[10]

Accordingly, the pragmatist sociologists William Thomas and Florian Znaniecki (1920, 1851) criticized "the indistinct use of the term 'habit' to indicate any uniformities of behavior. . . . A habit . . . is the tendency to repeat the same act in similar material conditions." Also treating habit as a propensity, William McDougall (1908, 37) wrote of "acquired habits of thought and action" as "springs of action" and saw "habit as a source of impulse or motive power." As John Dewey (1922, 42) put it, "[t]he essence of habit is an acquired predisposition to ways or modes of response." Many habits are unconscious. Habits are submerged repertoires of potential thought or behavior; they can be triggered or reinforced by an appropriate stimulus or context.[11]

The acquisition of habits (or habituation) is the psychological mechanism that forms the basis of much rule-following behavior. For a habit to acquire the status of a rule, it has to acquire some inherent normative content, to be potentially codifiable, and to be prevalent among a group. Persistent and shared habits are the bases of customs. William James (1892, 143) proclaimed: "Habit is thus the enormous fly-wheel of society, its most precious conservative agent."

The prevailing rule structure provides incentives and constraints for individual actions. Channeling behavior in this way, accordant habits are further developed and reinforced among the population. Hence the rule structure helps to create habits and

preferences that are consistent with its reproduction. Habits are the constitutive material of institutions, providing them with enhanced durability, power, and normative authority. In turn, by reproducing shared habits of thought, institutions create strong mechanisms of conformism and normative agreement. As Charles Sanders Peirce (1878, 294) declared, the "essence of belief is the establishment of habit." Accordingly, habit is not the negation of deliberation but its necessary foundation. Reasons and beliefs are often the rationalizations of deep-seated feelings and emotions that spring from habits laid down by repeated behaviors (Kilpinen 2000; Wood et al. 2002). This interplay of behavior, habit, emotion, and rationalization helps to explain the normative power of custom in human society. Hence "custom reconciles us to everything"—as Edmund Burke wrote in 1757—and customary rules can acquire the force of moral authority. In turn, these moral norms help to further reinforce the institution in question.

Habits are acquired in a social context and not genetically transmitted. By accepting the foundational role of habit in sustaining rule-following behavior, we can begin to build an alternative ontology of institutions in which we avoid the conceptual problems of an account based primarily on intentionality. This is not to deny the importance of intentionality but to regard it as a consequence as much as a cause and to place it in the broader and ubiquitous context of other, nondeliberative behaviors.[12]

By structuring, constraining, and enabling individual behaviors, institutions have the power to mold the capacities and behavior of agents in fundamental ways: they have a capacity to change aspirations instead of merely enabling or constraining them. Habit is the key mechanism in this transformation. Institutions are social structures that can involve reconstitutive downward causation, acting to some degree upon individual habits of thought and action. The existence of reconstitutive downward causation does not mean that institutions directly, entirely, or uniformly determine individual aspirations, merely that there can be significant downward effects. Insofar as institutions lead to regularities of behavior, concordant habits are laid down among the population, leading to congruent purposes and beliefs. In this way the institutional structure is further sustained.[13]

Because institutions simultaneously depend upon the activities of individuals and constrain and mold them, through this positive feedback they have strong self-reinforcing and self-perpetuating characteristics. Institutions are perpetuated not simply through the convenient coordination rules that they offer. They are perpetuated because they confine and mold individual aspirations and create a foundation for their existence upon the many individual minds that they taint with their conventions.

This does not mean, however, that institutions stand separately from the group of individuals involved; institutions depend for their existence on individuals, their interactions, and particular shared patterns of thought. Nevertheless, any single individual is born into a pre-existing institutional world which confronts him or her with its rules and norms.[14] The institutions that we face reside in the dispositions of other individuals but also depend on the structured interactions between them, often also involving mate-

rial artefacts or instruments. History provides the resources and constraints, in each case both material and cognitive, in which we think, act, and create.

Accordingly, institutions are simultaneously both objective structures "out there" and subjective springs of human agency "in the human head." Institutions are in this respect like Klein bottles: the subjective "inside" is simultaneously the objective "outside." The institution thus offers a link between the ideal and the real. The twin concepts of habit and institution may thus help to overcome the philosophical dilemma between realism and subjectivism in social science. Actor and institutional structure, although distinct, are thus connected in a circle of mutual interaction and interdependence.

Commons (1934, 69) noted that "[s]ometimes an institution seems analogous to a building, a sort of framework of laws and regulations, within which individuals act like inmates. Sometimes it seems to mean the 'behavior' of the inmates themselves." This dilemma of viewpoint persists today. For example, North's (1990, 3) definition of *institutions* as "rules of the game . . . or . . . humanly devised constraints" stresses the restraints of the metaphorical prison in which the "inmates" act. In contrast, Veblen's (1909, 626) description of institutions as "settled habits of thought common to the generality of men" seems to start not from the objective constraints but from "the inmates themselves." However, as Commons hinted and Veblen (1909, 628–30) argued in more depth, behavioral habit and institutional structure are mutually entwined and mutually reinforcing: both aspects are relevant to the full picture. A dual stress on both agency and institutional structure is required, in which it is understood that institutions themselves are the outcomes of human interactions and aspirations, without being consciously designed in every detail by any individual or group, while historically given institutions precede any one individual.

Some Problems with Douglass North's Exposition

Starting with a definition of institutions as socially embedded systems of rules, it is evident that organizations are a special kind of institution, with additional features. Organizations are special institutions that involve (a) criteria to establish their boundaries and to distinguish their members from nonmembers, (b) principles of sovereignty concerning who is in charge, and (c) chains of command delineating responsibilities within the organization.

However, in several influential statements by North, he has characterized institutions and organizations in a different way. The purpose of this section is to expose some difficulties in his account and to maintain my alternative definitions. These difficulties concern North's apparent distinctions (a) between institutions and organizations and (b) between "formal rules" and "informal constraints." North has been insufficiently clear. Consequently, many people misinterpret him as suggesting that organizations are not a type of institution. He is also misinterpreted as making a distinction between for-

mal and informal institutions. Strictly, North upholds neither of these distinctions. I also argue that North has insufficiently elaborated the nature and functioning of social rules that he rightly identifies as the essence of institutions. His emphasis on the rule-like character of institutions is consistent with my definition, but I believe that something else needs to be added. Concerning institutions in general, North (1990, 3–5) wrote:

> Institutions are the rules of the game in 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. . . . Conceptually, what must be clearly differentiated are the rules from the players. The purpose of the rules is to define the way the game is played. But the objective of the team within that set of rules is to win the game. . . . Modeling the strategies and skills of the team as it develops is a separate process from modeling the creation, evolution, and consequences of the rules.

North rightly insists that rules must be "clearly differentiated . . . from the players." The distinction between players and rules is similar to the distinction between agents and structures, as discussed elsewhere (Archer 1995; Lawson 1997; Hodgson 2004). Structures depend upon agents, but the two are different and distinct. North (1994, 361) also wrote:

> It is the interaction between institutions and organizations that shapes the institutional evolution of an economy. If institutions are the rules of the game, organizations and their entrepreneurs are the players. Organizations are made up of groups of individuals bound together by some common purpose to achieve certain objectives.

North reasonably sees organizations as including political parties, firms, trade unions, schools universities, and so on. People have interpreted North as saying that organizations are not institutions. But North does not actually write this. He simply establishes his own primary interest in economic systems rather than the internal functioning of individual organizations. He is not so interested in the social rules that are internal to organizations because he wants to treat them as unitary players and focus on interactions at the national or other higher levels.

There is nothing in principle wrong with the idea that under some conditions organizations can be treated as single actors, such as when there are procedures for members of an organization to express a common or majority decision. As Barry Hindess (1989, 89) argued, organizations can be treated as social actors as long as "they have means of reaching decisions and of acting on some of them." James Coleman (1982) came to a similar conclusion. Interestingly, the criteria that sometimes allow us to treat organizations as actors require an understanding of organizations as social systems with boundaries and rules.

However, a problem arises if we *define* organizations as actors. This would amount to an unwarranted conflation of individual agency and organization. Organizations—such as firms and trade unions—are structures made up of individual actors, often with conflicting objectives. Even if mechanisms for "reaching decisions and of acting on some of them" (Hindess 1989) are ubiquitous, the treatment of an organization as a social actor should not ignore the potential conflict within the organization. The treatment of the organization as a social actor abstracts from such internal conflicts, but an abstraction should not become a fixed principle or definition that would block all considerations of internal conflict or structure.

Abstraction and definition are entirely different analytical procedures. When mathematicians calculate the trajectory of a vehicle or satellite through space, they often treat it as a singular particle. In other words, they ignore the internal structure and rotation of the vehicle or satellite. But this does not mean that the vehicle or satellite is *defined* as a particle.

North does not make it sufficiently clear whether he is *defining* organizations as players or regarding organizations as players as an *analytical abstraction.* This has created much confusion, with other authors insisting that organizations should be *defined* as players. However, North has made it clear in letters to the author (September 10, 2002, and October 7, 2002) that he treats organizations as players simply for the purpose of analysis of the socio-economic system as a whole and that he does not regard organizations as essentially the same thing as players in all circumstances. In saying that "organizations are players," North is making an abstraction rather than defining organizations in this way.

When North (1994, 361) wrote that organizations "are made up of groups of individuals bound together by some common purpose," he simply ignored instances when this may not be the case. He is less interested in the internal mechanisms by which organizations coerce or persuade members to act together to some degree. Crucially, these mechanisms always involve systems of embedded rules. Organizations involve structures or networks, and these cannot function without rules of communication, membership, or sovereignty. The unavoidable existence of rules within organizations means that, even by North's own definition, organizations must be regarded as a type of *institution.* Indeed, North has essentially accepted that organizations themselves have internal players and systems of rules, and hence by implication organizations are a special type of institution (letter to the author October 7, 2002).[15]

As North acknowledged, it is possible for organizations to be treated as actors in some circumstances *and* generally to be regarded as institutions. Individual agents act within the organizational rule-system. In turn, under some conditions, organizations may be treated as actors within other, encompassing institutional rule-systems. There are multiple levels, in which organizations provide institutional rules for individuals, and possibly in turn these organizations can also be treated as actors within broader institutional frameworks. For example, the individual acts within the nation, but in

turn the nation can sometimes be treated as an actor within an international framework of rules and institutions.

Further ambiguities arise with North's distinction between formal "rules" and informal "constraints." Some distinction between the formal and the informal is important, but this distinction is attempted in different and confusing ways by various authors. Some identify the formal with the legal and see informal rules as nonlegal, even if they may be written down. In turn, if "formal" means "legal," then it is not clear whether "informal" should mean illegal or nonlegal (i.e., not expressed in law). Another possibility is to make the formal/informal distinction one of explicit versus tacit rules. Still another variant in the literature is to identify the formal with designed, and the informal with spontaneous institutions, along the lines of Carl Menger's famous distinction between pragmatic and organic institutions. We have at least three important distinctions, not one. North, like many other writers, does not make his intended distinction between "formal" and "informal" sufficiently clear.

The picture is further complicated by North's use of the different terms *rule* and *constraint.* North (1990, 1991, 1994) has written most often of formal and informal constraints, rather than formal and informal rules, but he has not indicated why he dropped the word *rule* and whether or not constraints are also rules. North has written frequently of "formal rules" but not of "informal rules." But some writers interpret North as making a distinction between formal and informal rules (e.g., Schout 1991). North's (1994, 360) examples of "formal constraints" are "rules, laws, constitutions" and of "informal constraints" are "norms of behavior, conventions, self-imposed codes of conduct." This suggests that rules are a special kind of formal constraint.

This creates a further problem for North. *If all rules are formal, and institutions are essentially rules, then all institutions are formal.* However, North (1995, 15) subsequently redefined institutions in the following terms: "Institutions are the constraints that human beings impose on human interactions." By redefining institutions essentially as constraints, rather than rules, this raised the question of a possible distinction between formal and informal constraints. This 1995 definition of an *institution* neglects the enabling aspect of institutions by emphasizing constraints alone. North (1997, 6) then shifted back to a conception of institutions as "the rules of the game of a society."

In correspondence with the present author, North identified "formal rules" with legal rules "enforced by courts" (October 7, 2002; see appendix). In contrast: "Informal norms are enforced usually by your peers or others who impose costs on you if you do not live up to them." Despite the persistent analytical emphasis in North's work on the power of informal and customary relations, his definitions dispose him to identify both rules and institutions with "formal" (i.e., legal) regulations.[16]

This confinement of the concept of an institution to legal rule systems can be criticized for excluding social orders that are not legally expressed from the category of an institution. An exclusive emphasis on legal rules can downplay the existence of rules and institutions that can also constrain and mold human behavior in significant ways.

Important examples include language and powerful social customs such as those pertaining to class in Britain, caste in India, gender in numerous countries, and many other phenomena. Some rules and institutions—such as language and some traffic conventions—can emerge largely spontaneously as coordination equilibria, which are reproduced principally because it is convenient for agents to conform to them. To some degree, moral beliefs, sanctions, and constraints operate in all these cases. Not all powerful rules or institutions are decreed in law.

North rightly emphasizes "informal constraints" but does not admit the category of informal rules. But all contingent constraints that derive from human action (rather than the laws of nature) are essentially rules. Accordingly, there is not a clear line between rules and constraints, as North suggests, and instead social constraints are essentially rules.

Furthermore, an overemphasis on the formal and legal aspects can overlook the reliance of legal systems themselves on informal rules and norms. As Émile Durkheim argued in 1893, "in a contract not everything is contractual" (1984, 158). Whenever a contract exists there are rules and norms that are not necessarily codified in law. The parties to the agreement are forced to rely on institutional rules and standard patterns of behavior, which cannot for reasons of practicality and complexity be fully established as laws. Legal systems are invariably incomplete and give scope for custom and culture to do their work (Hodgson 2001).

North fully accepts the importance of the informal sphere and frequently discusses the informal aspects of formal (i.e., legal) institutions. He emphasizes, for example, the roles of ideology and custom. But he insufficiently acknowledges informal *institutions* that are not decreed in law, including those that arise spontaneously, such as coordination equilibria. North (1990, 138) has rightly and additionally emphasized "informal constraints" and the "cultural transmission of values" but unnecessarily confines his definition of *institutions* to rules codified in law.

Whether we are dealing with formal or informal rules, we need to consider the ways in which rules are enacted. While it does not necessarily have to enter into the *definition* of an institution or rule, there has to be some account of how rule-systems affect individual behavior. Pointing to the incentives and sanctions associated with rules is insufficient because it would not explain how individuals evaluate the sanctions or incentives involved. We also have to explain why they might, or might not, take incentives or sanctions seriously.

Clearly, the mere codification, legislation, or proclamation of a rule is insufficient to make that rule affect social behavior. It might simply be ignored, just as many drivers break speed limits on roads and many continental Europeans ignore legal restrictions on smoking in restaurants. In this respect, the unqualified term *rule* may mislead us.

North fully acknowledges that mere rule proclamation is not enough. But in trying to understand how behavior is fixed or changed, his attention sometimes shifts to the "informal constraints" of everyday life. Of course, the informal sphere is vital, but ironi-

cally, according to North's own definitions, "informal constraints" are not institutions at all. I prefer a broader conception of institutions that accommodates the informal basis of all structured and durable behavior. That is why I define *institutions* as durable systems of established and embedded social rules that structure social interactions, rather than rules as such. In short, institutions are *social rule-systems*, not simply rules.

The ambiguity of the terms *formal* and *informal* with regard to institutions and rules suggests that these words should either be abandoned or used with extreme care. It may be best to use more precise terms such as *legal*, *nonlegal*, and *explicit* instead.

While broadly subscribing to North's definitions, Pavel Pelikan (1988, 372; 1992, 45) compared North's "rules" to the "genotype" within the "phenotype" of the organizational structure.[17] If rules are like genes, then this underlines the importance of considering their mechanisms of survival and replication and the way in which they can affect individuals or organizations. Rules do not have the capacity to copy themselves directly; they replicate through other psychological mechanisms. From a pragmatist perspective, the gene-like entities behind rules are individual habits, because these habits are the conditional, rule-like dispositions that marshal behavior. Rules generally work only because they are embedded in shared habits of thought and behavior. Hence it is best to treat habits rather than rules as social genotypes.

Self-enforcement versus External Enforcement

With one possible exception, all institutions depend on other institutions. As Searle (1995, 60) pointed out, "language is the basic social institution in the sense that all others presuppose language, but language does not presuppose the others." Language is basic because all institutions involve social interaction and interpretation of some kind. Accordingly, all institutions involve at least rudimentary interpretative rules.

This literature on self-organization and spontaneous orders provides the essential insight that institutions and other social phenomena can arise in an undesigned way through structured interactions between agents. The focus on self-organizing aspects of the social system can be traced back to David Hume and Adam Smith, and it is a major theme in the Austrian school of economics from Carl Menger to Hayek. This literature shows that social order can emerge that is not itself an intention or property of any single individual or group of individuals.

However, even self-organizing institutions require a (rudimentary) language so, with the exception of language itself, the concept of *self*-organization must be qualified by the acknowledgement of the prior and extrinsic organization of communicative or interpretative rules.

Furthermore, the concepts of self-organization or spontaneous order are insufficient for an understanding of all institutions. Menger ([1871] 1981) himself recognized a distinction between "organic" (self-organizing) and "pragmatic" (designed) institutions. But many subsequent authors ignore the latter to concentrate on the former.

Indeed, much of the existing literature on institutions exhibits an excessive emphasis on the (albeit essential) idea of self-organization, to the detriment of other vital mechanisms of institutional emergence and sustenance.

With institutions that are not self-organizing, there is a stronger dependence on other institutions that are required to enforce the internal rules. We first examine some typical mechanisms of self-organization and then move on to cite some cases where such external dependence pertains.

An archetypical self-organizing configuration is a coordination game. Coordination rules typically provide incentives for everyone to conform to the convention. Consequently, a coordination equilibrium can be self-policing and highly stable. Language is an example. In communication we have strong incentives and inclinations to use words and sounds in a way that conforms as closely as possible to the perceived norm. Norms of language and pronunciation are thus largely self-policing (Quine 1960).

Similarly, some (but not all) legal rules have a strong self-policing element. For example, there are obvious incentives (apart from avoiding legal sanctions) to stop at red traffic lights and to drive on the same side of the road as others. Although infringements will occur, these particular laws can be partly enforced by motorists themselves, because infringements can increase perceived personal risks.

A coordination equilibrium can be self-enforcing because not only does each player lack any incentive to change strategy but also each player wishes that other players keep to their strategy as well (Schotter 1981, 22–3). If agents have compatible preferences and strategies in this sense, then coordination rules can often emerge spontaneously and be self-reinforcing. Even if I prefer to drive on the left, when I find myself in a country where driving on the right is the convention, then I will drive on the right, and others will prefer that I do this. A coordination equilibrium has characteristics of stability and self-enforcement, even when the equilibrium is not ideal for everyone involved.

However, coordination games are a special case. Contrasting configurations include the famous prisoners' dilemma game, which allegedly represents several types of social situations, including the socially suboptimal but individually advantageous use of private cars rather than public transport (Best 1982), the famous "tragedy of the commons" (Hardin 1968), and aspects of the employment contract (Leibenstein 1982).

At least in a one-shot play of the prisoners' dilemma game, each player has an incentive to defect. The situation of mutual cooperation is not a Nash equilibrium because each player can gain an advantage by shifting from cooperation to defection. The Nash equilibrium is where both players defect but each player gets less than he or she would if both players cooperated. A "spontaneous order" may emerge, but it is clearly suboptimal by any reasonable criterion.[18]

Coordination rules are followed primarily because of convenience. By contrast, suboptimal outcomes in the prisoners' dilemma game raise normative questions in a more acute manner. Although all rules involve costs and benefits, there is a big difference between following a rule simply because it is convenient to do so and following a rule because of a normative belief. Viktor Vanberg (1994, 65) has rightly pointed out

that writers in the spontaneous order tradition—from Hume and Smith through Menger to Hayek—acknowledge inadequately the additional moral and legal mechanisms that are required for enforcement in noncoordination games. Walter Schultz (2001, 64–6) stressed a similar distinction in his powerful discussion of the problem of enforcement of social rules.

Until recently, the problem of enforcement has been relatively neglected in the literature. As noted above, some rules are largely self-enforcing. In contrast, laws that restrict behavior, where there are substantial, perceived net advantages to transgression, are the ones that require the most policing. Hence people frequently evade tax payments or break speed limits. Without some policing activity, the law itself is likely to be infringed, debased, and "brought into disrepute."

For example, there are incentives to debase money. If they can evade detection, individual agents have an obvious incentive to use less costly, poor quality, or faked versions of the medium of exchange. If such forgeries or debasements are allowed to endure, then bad money will drive out the good. Money is not self-policing in the same way as language and may require some external authority to enforce its rules, as Menger himself acknowledged (Latzer and Schmitz 2002).

Self-policing mechanisms can be undermined if there is the possibility of undetected variation from the norm and there is sufficient incentive to exert such variations. Language and money differ in this respect. The argument for enforcement by a third party such as the state is thus stronger in the case of money and some laws than in the case of language.

Attempts to explain the evolution of contract and private property in entirely spontaneous terms have failed. Some authors attempt to explain the enforcement of property rights by means of such devices as trading coalitions (Greif 1993). Itai Sened (1997) showed that property rights are not entirely self-reinforcing and some external institution such as the state is required to enforce them. With a larger number of actors, it is more difficult for individuals to establish mutual and reciprocal arrangements that ensure contract compliance (Mantzavinos 2001, chap. 8). If trading coalitions do emerge, then these themselves take upon state-like qualities to enforce agreements and protect property. In a world of incomplete and imperfect information, high transaction costs, asymmetrically powerful relations, and agents with limited insight, powerful institutions are necessary to enforce rights.

It is an open question as to whether another strong institution, apart from the state, could fulfill this necessary role. I simply note that an important class of institutions exists in which such institutions depend on other institutions in order to enforce effectively their rules. In the real world, there are many examples where some institutions are sustained and supported by others. The role of the state in enforcing law and protecting property rights is but one example. A major agenda for enquiry is to explore the extent of such complementarities and understand their mechanisms in depth.

Agent Sensitive and Agent Insensitive Institutions

Here I introduce a different distinction with the terms *agent sensitive* and *agent insensitive* institutions. An *agent sensitive institution* is one in which the reigning equilibria or conventions can be significantly altered if the preferences or dispositions of some agents are changed, within a feasible set of personality types. This issue is best approached by considering some examples of agent insensitive institutions.

In one of his earliest papers, Gary Becker (1962) demonstrated that behavior ruled by habit or inertia is just as capable as rational optimization of predicting the standard downward-sloping demand curve and the profit-seeking activity of firms. He showed how the negatively inclined market demand curve could result from habitual behavior, up against a moving budget constraint. A constraint means that agents, whether super-rational or habit driven, have to stay on one side of the line. With agents of each type, rotations in the budget constraint can bring about downward-sloping demand curves, irrespective of whether agents, in his terms, are *habitual* or *rational.*[19]

Much later, Dhananjay Gode and Shyam Sunder (1993) showed that experiments with agents of "zero intelligence" produce behaviors that differ little from those with human traders. They suggested that structural constraints can produce similar outcomes, whatever the objectives or behavior of the individual agents. As in Becker's model (1962), systemic constraints prevail over micro-variations. Ordered market behavior can result from the existence of resource and institutional constraints and may be largely independent of the "rationality," or otherwise, of the agents. Structural constraints, not individuals, do much of the explanatory work. We thus face the possibility of a study of markets that focuses largely on institutions and structures, to a degree independent of the assumptions made about agents.[20]

These models suggest that ordered and sometimes predictable behavior can sometimes result largely from institutional constraints. The explanatory burden is carried by system structures rather than the preferences or psychology of individuals. I describe such cases as "agent insensitive" institutions because outcomes are relatively insensitive to individual psychology or personality.

Partly on the basis of the Gode and Sunder results (1993), Philip Mirowski (2002) argued that to understand markets we do not have to pay much attention to the psychologies, cognitive processes, or computational capacities of the agents involved. Instead he treated the market itself as a computational entity. His arguments may apply to some institutional structures, including some markets, and to that extent they are important and worthwhile. But they do not constitute a general theoretical strategy unless agent insensitivity is itself general among institutions.

What is common to the Becker (1962) and Gode and Sunder (1993) models is the existence of hard and insurmountable (budget) constraints. They push the agents into position and offer them few alternatives, whatever their inclinations. Hence these models are agent insensitive and the constraints do much of the explanatory work. Such hard constraints do exist in reality, but they are a rather special case. Other institutional

constraints operate through disincentives or legal penalties. But in such cases it may be possible to cross the line or break the law. The propensity to break rules or transgress constraints will in part depend on the preferences and dispositions of each individual agent. If the constraints were softer, then the agents would have more discretion and it would be likely that the personalities of the agents would have to be taken into account. By wrongly suggesting that agent insensitivity is a general case, Mirowski's research strategy carries the danger of a general conflation of agency into the institutional structure.

Consider the alternative possibility of relatively high incentives to conform to a convention. A coordination game is ostensibly agent insensitive because the players have an incentive to conform to the reigning convention, even if it is not their most favored option. British drivers will drive on the right in America and continental Europe, even if they find it easier to drive on the left. To a degree, such traffic conventions are agent insensitive. However, a convention can be overturned if a sufficient number of people defy it. As long as the benefits of coordination are finite, the possibility exists of a relatively extreme personality type that may be inclined to overturn the prevalent convention. In the different case of hard constraints, all agents are required to comply, whatever their inclinations.

In contrast to a system with hard constraints, a number of configurations are agent sensitive. Consider, for example, a reigning pattern of cooperation in a repeated prisoners' dilemma game resulting from a population dominated by units playing the tit-for-tat strategy. However, they can be invaded by an influx of others who always cooperate. If this occurs, then the consequent population of cooperators would clearly be vulnerable to an invasion by a species that consistently defects. In turn, if this invasion were incomplete, or subject to a slight amount of error, then a new invasion of tit-for-tat players could take advantage of the fact that consistent defection was not absolute. Each of these outcomes is unstable (Kitcher 1987; Lindgren 1992). The prevailing conventions are sometimes sensitive to the types of player that are involved. Another possibility of agent sensitivity results from the existence of multiple (Nash) equilibria. Slight differences between the personalities of agents may matter if there is a choice between two or more (near) optimal positions.

If we introduce greater variance in personality and observe the stability of reigning conventions, then we can gauge the agent sensitivity of the institutional set-up involved. Institutions exhibit different degrees of agent sensitivity and insensitivity, and investigations should not be confined to extreme or particular types.

Concluding Remarks

This essay has proposed some key definitions, as follows:

- *Social structures* include all sets of social relations, including the episodic and those without rules, as well as social institutions.

- *Institutions* are systems of established and embedded social rules that structure social interactions.
- *Rules* in this context are understood as socially transmitted and customary normative injunctions or immanently normative dispositions, that in circumstances X do Y.
- Conventions are particular instances of institutional rules.
- *Organizations* are special institutions that involve (a) criteria to establish their boundaries and to distinguish their members from nonmembers, (b) principles of sovereignty concerning who is in charge, and (c) chains of command delineating responsibilities within the organization.
- *Habituation* is the psychological mechanism by which individuals acquire dispositions to engage in previously adopted or acquired (rule-like) behavior.

Some of the discussion in this essay has involved putting some flesh on these bare-bones definitions, particularly in the case of institutions and rules. This involves the key concept of habit, which is regarded as a key element in the understanding of how rules are embedded in social life and how institutional structures are sustained.

Many writers attempt distinctions between "formal" or "informal" institutions or rules. However, these terms have been used misleadingly and in different ways. Does the term *formal* mean legal, written, explicit, codifiable, or something else? The ambiguities surrounding these terms mean that they cannot be taken for granted. One is required to specify more clearly what is meant in each case or use more transparent terms such as *legal, nonlegal,* and *explicit* instead.

Generally, the idea that there is a dividing line between institutions that are entirely "formal" on one hand and entirely "informal" institutions on the other is false, because "formal" institutions (in any of the above senses) *always* depend on nonlegal rules and inexplicit norms in order to operate. If laws or declarations are neither customary nor embodied in individual dispositions, then—"formal" or not—they have insignificant effects. They are mere declarations or proclamations, rather than effective social rules. Some declarations simply codify existing customs. Other proclamations may eventually become effective rules but only through additional powers, such as persuasion, legitimization, or enforcement. To put it differently, legal or "formal" institutions that do not have strong "informal" supports are unsupported legislative declarations rather than real institutions. This does not mean that legal rules are unimportant but that they become important by becoming incorporated in custom and habit.

An attempt has also been made here to avoid some overgeneralizations concerning the nature of institutions. In particular, while self-organization is an extremely important phenomenon in both nature and society, it would be a mistake to suggest that all institutions are of this type. It has been shown here that some institutional rules require other institutions for their enforcement.

Second, while there are cases where institutional rules or constraints do much of the explanatory work, and therefore the institutional outcomes are relatively insensitive to the personalities or psychologies of the agents involved, these instances are not universal. To regard all institutions as agent insensitive is to lead to the further error of conflating individuals into the institutional structure, where the interplay of both is required to understand how institutions are formed and sustained.

Appendix A
Extracts from Correspondence between Douglass C. North and Geoffrey M. Hodgson

NORTH, 10 September 2002

"First of all . . . organizations, you say, are special institutions. I think that for certain purposes we can consider organizations as institutions, but for my purposes organizations are to be separated out from institutions. That is, I am interested in the macro aspect of organization, not in the internal structure of organization. If I was interested in the latter . . . I would be interested in internal structure, governance and indeed all the kind of internal problems of structure, organization and conflicts of interest. . . . I am not interested in that. What I am interested in is that the actors in the process of overall societal, political economic change, and . . . I can forget about the internal structure, even how decisions are made internal to the organization and simply look on the entrepreneurs of organizations as the key players in the process of institutional change. . . . For certain purposes one can consider organizations as institutions but for the purposes that I am dealing with—looking at the macro aspects of institutional change—I do not have to; indeed, I do not want to. . . . As I said at the beginning, I think that we are really not in too much disagreement. I think the issue really is the kinds of questions that I am asking which make me focus in a particular way."

HODGSON, 19 September 2002

I understand fully that you are interested primarily in overall, socio-economic change, rather than the internal structure of organizations. I believe that such a special focus is entirely legitimate. And I am one of very many who warmly appreciate your major contribution in this area.

I would presume that you also believe it to be legitimate to study the internal structure of organizations. . . . What concerns me is the need for conversation and common understanding between those . . . who concentrate on the internal structure or organizations and those (like yourself) who concentrate on overall socio-economic change. For a conversation to take place there must be shared meanings of terms.

In this respect I find a statement like "organizations are players" to be potentially problematic. If "organizations are players" means "I will treat organizations as players for the purposes of my kind of analysis" then, given certain conditions, that would be OK in my view. However, if "organizations are players" means "organizations are defined as players" or "organizations are essentially the same as individuals or players" then I would find these formulations to be misleading. . . . When you say "organizations are the players" do you mean to say:

(a) "for the purposes of analysis of the socio-economic system as a whole it is legitimate to treat organizations as if they are players"? or
(b) "organizations are essentially the same thing as players," i.e. in all circumstances?

If you follow (a)–and your letter of September 10th seems to lean in this direction–then a definition of organization is still outstanding. So in this case, I would ask a further question:

(a*) Would you accept a definition of organization that accepted that organizations themselves had internal players and systems of rules, and hence organizations were a special type of institution?

I would very grateful for your help and clarification on these points. If your answers to (a) and (a*) were in the affirmative then I would be in complete agreement with you.

I would like also to turn to a second issue where I am still unclear. This concerns the distinction between the formal and the informal. I also think that this issue is important but I think that there is much confusion in the broad literature on this topic. . . .

(c) Does the formal/informal dichotomy refer to a distinction between legal and nonlegal, or a distinction between explicit and tacit rules/constraints?
(d) Given the answer to (c), are there such things as informal rules?
(e) Is a social/organizational/behavioral constraint also a rule? . . .

I know that I am pressing you a bit but I think that it is important to achieve maximum clarity, and then hopefully consensus, in this area. . . . My hope is that we can increase our agreement and then move on.

NORTH, 7 October 2002

In reply to your letter, I am in complete agreement with you on the first part of your question. That is, I agree that (a) and (a*) are exactly what I have in mind, so we are in complete agreement. On the other issue, I regard informal norms not as rules but as norms of behavior which have different kinds of enforcement characteristics than formal rules. Formal rules are enforced by courts and things like that. Informal norms are enforced usually by your peers or others who will impose costs on you if you do not live

up to them. In that sense, because they have different enforcement characteristics, I do not consider them to be a rule in the same sense that formal rules are.

Notes

1. Jack Knight (1992, 2), for example, similarly defined an *institution* as "a set of rules that structure social interactions in particular ways." However, there is a debate within the new institutional economics whether institutions should be regarded essentially as equilibria, norms, or rules (Aoki 2001; Crawford and Ostrom 1995). But this interpretative conflict arises essentially within an intellectual tradition that takes individual preferences or purposes as given. Being relatively stable, institutions have equilibrium-like qualities, even if their equilibria can be disturbed. These equilibria are reinforced as preferences or purposes become molded by the outcomes. Turning to norms and rules, they are not simply the "environment" in which the (rational) actor must decide and act; they are also internalized in the preferences, and replicated through the behavior, of the individual. Repeated, conditional, rule-like behavior acquires normative weight as people accept the customary as morally virtuous and thus help stabilize the institutional equilibrium. Once we see the effects of institutions on individuals, as well as the effects of individuals upon institutions, the three aspects of institutions become entwined.
2. Note that the French *economie des conventions* school adopts a broad definition of convention that is closer to the notion of a rule adopted here (Thévenot 1986; Orléan 1994; Favereau and Lazega 2002).
3. Tony Lawson (2003a, 189–94) listed several behavioral definitions in the institutionalist literature and rightly criticized them. Walter Hamilton's famous definition of an institution as "a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of a people" (1932, 84) is preferable to some of the later institutionalist definitions, as long as habits and customs are interpreted as dispositions rather than merely behaviors.
4. While flawed, definitions of institutions in terms of behaviors were understandable during the positivist era in psychology and the social sciences—from about the 1920s until well after the Second World War—when it was widely and mistakenly upheld that discussions of unobservables had no place in science (Hodgson 2004).
5. Margaret Archer's (1995) useful discussion of demographic structure nevertheless fails to identify the distinction between structures in general and institutional, rule-based structures.
6. See Ostrom 1986 and Crawford and Ostrom 1995 for detailed analyses of the nature of institutional rules.
7. The definition of *technology* is itself problematic and is not attempted here. See Nelson and Sampat 2001, among many others.
8. Roy Bhaskar (1989, 80, 85, 112) wrote "intentional human behaviour is . . . always caused by reasons" and "the reason for the behaviour is itself a belief." But, it is then admitted, "[b]eliefs may be unconscious, implicit or tacit." Consequently, the concept of intentionality is stretched to cover unconscious behavior and we have no criterion by which we can decide whether a form of behavior is "action" or "mere movement."
9. For a critical discussion of John Searle's treatment of collective intentionality see Vromen 2003.
10. Lawson (2003b, 333) has interpreted Veblen differently, without textual evidence, "as using the term habit to indicate certain (repeated) forms of action." On the contrary, there are several passages in Thorstein Veblen's works that suggest a view of habits as propensities or dispositions (see Hodgson 2004, 169).

11. The conception of a habit as a propensity or disposition is also found in modern works such as Camic 1986, Margolis 1987, Murphy 1994, Ouellette and Wood 1998, Kilpinen 2000, Wood et al. 2002, and others.
12. The dispositional treatment of habit here is broadly consistent with Viktor Vanberg's concept (2002) of "program-based" activity, which he insisted must be rendered consistent with our knowledge of human evolution.
13. For a discussion of the original concept of "downward causation," see Sperry 1991. Reconstitutive downward causation is further discussed in Hodgson 2003 and 2004, and the process is modeled, with a habit-forming mechanism, in Hodgson and Knudsen 2004.
14. See Hodgson 2004 for a discussion of historical accounts of this insight, from Comte, through Marx, Lewes, Durkheim, Veblen, and others to Archer 1995.
15. See the appendix for the correspondence with Douglass North on this question.
16. Like North, John R. Commons advanced a predominantly legal conception of an institution (1934), and I have criticized this elsewhere (Hodgson 2004, chap. 13). See Fiori 2002 for a discussion of the role of the distinction between formal rules and informal constraints in North's work.
17. Pavel Pelikan's definitions (1988, 1992) are similar but not identical to those of North. He treats institutions as "rules" but also explicitly considers internal "institutions" (rules) of organizations.
18. Although mutual cooperation can emerge in repeated prisoners' dilemma games, Robert Axelrod's "tit-for-tat" strategy (1984) can be outcompeted by alternative strategies (Kitcher 1987; Lindgren 1992; Binmore 1998).
19. Note that Gary Becker implied a dichotomy between "habitual" and "rational" behavior (1962), which he later abandoned by attempting to explain habitual behavior in rational terms (Becker and Murphy 1988). Becker's position contrasts with the pragmatist view, where habit is the grounding rather than the antithesis or outcome of rational deliberation.
20. For useful discussions of these results, see Denzau and North 1994, Mirowski 2002, and Mirowski and Somefun 1998. Jean-Michel Grandmont (1992) has similarly demonstrated that aggregate demand can be well behaved under certain distributional restrictions, merely by assuming that individual behavior satisfies budget constraints, without any reference to utility maximization. See also Hildenbrand 1994.

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