6 ORDERS AND ORGANIZATIONS: TOWARD AN AUSTRIAN THEORY OF SOCIAL INSTITUTIONS

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Introduction

That the Austrian school of economics is and has been fundamentally concerned with the theory of social institutions is a proposition gaining wide acceptance today—by critics of this school as well as by its adherents. This is a rather striking development. Not too many years ago, the prevailing wisdom was that the American Institutionalist school (of Thorstein Veblen, John R. Commons, and Wesley C. Mitchell) was the sole repository of thinking about social institutions and that, moreover, Institutionalist approaches and beliefs were strongly at odds with everything Austrian.[1] But a recent spate of articles, including a couple of symposia in the journals, has highlighted the Austrian approach to institutions and brought it into contact—albeit sometimes violent contact—with the Institutionalist school (Boettke, 1989; Hodgson, 1989; Langlois, 1989; Perlman, 1986; Rutherford, 1989a, 1989b; Samuels, 1989; Vanberg, 1989).

One result of this flurry of interest in Austrian institutionalism[2] is that the methodological issues and controversies have been well aired. This in turn leaves me free to engage in synthesis and extension without too much attention to the doctrinal niceties.

This essay proceeds in three parts. The first part looks into the concept of an institution itself. What exactly *is* an institution? How do we think about institutions in general and within the framework of Austrian economics as broadly understood? One of the important distinctions to emerge from this enquiry is F. A. Hayek's dichotomy between (spontaneous)

orders and organizations. The remaining two sections will examine in turn the theory of these two classes of institutions. The discussion of spontaneous orders will be largely a matter of synthesis and exposition, but the discussion of organizations will, I hope, point to new directions. Indeed, the analysis of organizations—notably the business firm—is a much-neglected area in Austrian economics. It is also an area in which there is a good deal of exciting theoretical work today that draws on many of the Austrian's favorite insights.

What are Social Institutions?

At the base of virtually all formulations of the concept of a social institution lies the notion of rule-following behavior. Institutions reflect behavior that is highly organized, in the sense that the behavior represents a relatively predictable or non-random pattern.[3] And such patterns emerge as the result of the following of rules; they are, as Hayek (1967) puts it, systems of rules of conduct.

Sometimes the rules seem to be a property of the human agents themselves. Agents follow rules unconsciously as if, in effect, programmed to do so. Writers who take an evolutionary perspective on social institutions often incline to this interpretation, even though most are aware that rules have other meanings as well (Hayek, 1967, 1973; Nelson and Winter, 1982). These writers stress the skill-like nature of behavior, which implies that the rules guiding behavior are often necessarily inexplicit or tacit (Polanyi, 1958). Sometimes, however, social institutions seem to consist of rules external to individuals. Such rules are more in the nature of side-constraints (Nozick, 1974) that channel the behavior of individuals whose operating principles may not be the following of rules in the first sense. For example, the agents may be consciously maximizing their utility within a framework (like private property rights) that constrains their choices. In both cases, the rules generate an orderly pattern of behavior.[4]

There is not necessarily a conflict between these two meanings of rule following, and one can imagine both types to be operating, to varying degrees, in a system of social institutions. For example, consider what is probably the canonical example of a social institution in the modern literature: the convention that one drive on the right-hand side of the road in North America and Continental Europe. This institution is an explicit rule of law that one can be punished for violating; but it is also an unconscious predisposition of native drivers. Indeed, as Hayek and others would point out, the following of unconscious rules obviates attention to

many of the details of behavior, which frees up attention and thus actually facilitates conscious action (constrained or otherwise).

Another important aspect of social institutions, one closely related to their order-producing and rule-like aspects, is their capacity to economize on knowledge or information. The late Ludwig Lachmann put it this way:

> An institution provides a means of orientation to a large number of actors. It enables them to coordinate their actions by means of orientation to a common signpost. ... The existence of such institutions is fundamental to civilized society. They enable each of us to rely on the actions of thousands of anonymous others about whose individual purposes and plans we can know nothing. They are nodal points of society, co-ordinating the actions of millions whom they relieve of the need to acquire and digest detailed knowledge about others and form detailed expectations about their future action. (Lachmann, 1971, 49–50)

Thus, by making the behavior of others more predictable, institutions reduce the amount of information we need to behave effectively in society. To make this point clearer, consider again our canonical example. Because of the convention that everyone drive on the right, I do not need information about the lane preference of each driver who confronts me head on. This is related to the point I made above. Institutions—viewed as rules, customs, routines, habits, or conventions[5]—contain or embody knowledge about effective behavior. This economizes on the explicit knowledge one must have to behave effectively. Knowledge and the following of rules are strongly intertwined.

Another important aspect of institutions is their hierarchical nature. This is an aspect that has received too little attention in the literature. Again, institutions are *systems* of rules of conduct. Theory here is not well developed; but it is probably not too much of an oversimplification to say that institutions—systems of rules—operate at many different levels, each level affecting the operation of the rules at the level below. For example, Lachmann distinguishes between external and internal institutions.

> [I]t might be said that the undesigned institutions which evolve gradually as the unintended or unforeseeable result of the pursuit of individual interests accumulate in the *interstices* of the legal order. ... In a society of this type we might then distinguish between the *external* institutions which constitute, as it were, the outer framework of society, the legal order, and the *internal* institutions which gradually evolve as a result of market processes and other forms of spontaneous individual action. (Lachmann, 1971, 81; emphasis original.)

This captures some flavor of the hierarchical structure of institutions.[6]

It may be helpful here to reassert a distinction that cuts across the one Lachmann suggests. Carl Menger long ago distinguished between institutions that are of *pragmatic* origin and those that are of *organic* origin. The former are the result of "socially teleological causes," that is, they arise because of a common will directed toward their creation. By contrast, organic institutions are "the unintended result of innumerable efforts of economic subjects pursuing individual interests" (Menger, 1963, 158). Menger was primarily concerned with the *origin* of institutions. And, as Viktor Vanberg (1889, 338) reminds us, the question of the origin of an institution is logically distinct from the question of its social functionality, that is, of its principles of operation once created. Hayek makes a distinction about rules of operation that is analogous to Menger's distinction about origins. We can divide institutions into *orders*[7] and *organizations*. Although Hayek is not always clear on this point, what distinguishes the two classes is not so much their origins as the nature of the rules they comprise. The rules of an order are abstract and independent of purpose, whereas the rules of an organization are concrete and directed toward a common purpose or purposes (Hayek, 1973, 38).

These distinctions leave us with a matrix of intersecting possibilities. (See figure 6–1.) One class of institutions comprises systems of rules that are independent of purpose and are of organic origin. These are what Hayek calls *spontaneous* orders. Examples include: various kinds of social

	ORDERS	ORGANIZATIONS
ORGANIC	Common Law Social conventions (Spontaneous Orders)	Public Choice view of government Evolutionary view of the firm
PRAGMATIC	Constitutional design	GM/Toyota joint venture NASA manned space-flight program

Figure 6–1. Matrix of explanatory possibilities. Modified from Vanberg (1989).

conventions; the common law, language, money. At least in principle, however, not all orders need be organic. Writers of a constitutionalist bent (Buchanan, 1990) would insist that systems of rules can be both independent of purpose and pragmatic, at least in the sense that one can consciously design a constitutional framework. The proper domain of the spontaneous and the planned is a matter of running controversy between the followers of Hayek and the constitutionalists.

What has been less often noticed is that organizations can also be of organic origin. It is tempting to assume that, since organizations comprise rules directed toward specific ends, and since attention to goals is a feature of human rationality, all such institutions must have been consciously created. In fact, however, one finds the same sorts of unintended consequences and unplanned outcomes in the realm of organizations that one finds in spontaneous orders. The goals framing the rules of operation of, say, a government regulatory commission may be quite different from the goals envisaged by those who set the commission up (Edelman, 1964). Indeed, one might easily portray the entire Public Choice theory of politics as undermining a conception of government as a pragmatic institution. As I will suggest later, one can also see the evolution of another type of organization—the firm—as organic in character.

Conscious intention certainly does play a role in the formation of organizations; but it is a role fully analogous to the one it plays in the formation of a spontaneous order. That is to say, the explanation for the existence of an organization as we observe it today is not the conscious intention of any single individual or unified group but rather the diverse intentions of many individuals and groups interacting with one another and with external circumstance over time. For an organization to be genuinely of pragmatic origin, then, unintended consequences must not intrude to alter the intentions of the founders. This may occur when the organization is not very complex. It may also happen when we examine a short-lived organization or limit our time perspective to a short period. Examples of such pragmatic organizations might include a joint venture between GM and Toyota to produce cars in California, or perhaps the American manned spaceflight program of the 1960s.

How do these distinctions square with Lachmann's distinction between external and internal institutions? Not perfectly, I think. All external institutions are orders rather than organizations. They are general and abstract rules, facilitating many different concrete purposes. But some internal institutions may also be abstract. A constitution establishing the rights of property is internal to the institutions of language; the common law of contracts is internal to the system of property rights, and so on. In

some ways, of course, the distinction between an order and an organization is also a matter of degree, with orders shading off into organizations as the rules become more particular and concrete. And, in the end, it may well be that the externalness of an institution is tied up with the generality and abstractness of its rules. But I'm not sure how to prove this.

In the remainder of this chapter I will put aside pragmatic orders in the strict sense and consider in turn spontaneous orders and—if the reader will forgive the expression—organic organizations.

The Theory of Institutional Evolution

Following Menger's lead, a modern Austrian theory of social institutions would necessarily be a causal-genetic or process theory. By that I mean a theory in which explanation involves tracing out a sequence of events rather than merely constructing the conditions for an equilibrium. The exemplar of this approach is Carl Menger's theory of the institution of money (O'Driscoll, 1986).

To put it another way, Austrian theories of social institutions rely on Invisible Hand explanations. Such explanations describe the development of institutions as a sequence of the actions of individuals aggregated by some compositional principle (Langlois, 1986c). The compositional principle need not be merely "adding up" the behavior of the individuals (whatever that means), but would typically involve filtering or selection mechanisms. There is in my view no fundamental distinction between Invisible Hand explanations and evolutionary explanations, except to the extent that one takes the biological analogy to restrict the latter to particular types of selection principles. Indeed, it is now well understood that Menger's approach to social institutions and Darwin's theory of biological evolution have a common ancestor in the writings of the Scottish Enlightenment (Schweber, 1977; Jones, 1986).

With this said, it may seem paradoxical for me now to suggest that a useful place to begin a theory of institutions is with the theory of games. In its pure form, game theory is an equilibrium theory and certainly not a process theory. But there is ultimately no paradox. I will argue that game theory in its simpler manifestations can be a valuable complement to a causal-genetic or evolutionary theory of social institutions. Building on the work of philosophers David Lewis (1969) and Edna Ullmann-Margalit (1977), economists like Andrew Schotter (1981, 1986), Jack Hirshleifer (1982), Robert Sugden (1986), and Nicholas Rowe (1989) have looked at social institutions instructively from within the framework of game theory.

I particularly recommend Sugden's book as a starting place for those interested in this area.

In order to simplify the exposition, let me restrict myself to the two most important canonical games that appear in this work. The first of these is the *coordination game*, of which the automobile example is an instance. (See figure 6–2.) If I choose to drive on the left-hand side of the road and an oncoming motorist chooses the right (or vice-versa), the "payoffs" to both of us will likely be negative. If, however, we both choose the same side of the road—either side—we will not incur these penalties. With repeated play of this game, one would expect drivers to keep to one particular side as a matter of *convention*. Notice that such a convention is self-enforcing: anyone who consistently drives on the left in the United States will be punished by negative payoffs quite apart from any penalties invoked by the courts. Notice also that, while far superior to discoordination, a convention solution need not be optimal. In figure 6-2, driving on the right has a higher payoff than driving on the left, perhaps, we might imagine, because automobiles are cheaper when one conforms to the standard that is more popular around the world. But historical accident may lead a region to the opposite standard. Such conventions are path-dependent processes of the sort Paul David (1985) has popularized. It is typically costly to alter a convention once established, and it may take some kind of centralized coordination to do so—as when Sweden and Okinawa changed their side-of-the-road driving conventions.

In a coordination game, the incentives of both players are aligned; their common objective is facilitated by the reduction in information costs

		Player 1: Right	Player 1: Left
Player 2	Right	2, 2	-10, -10
	Left	-10, -10	0, 0

Figure 6–2. A coordination game.

a convention achieves. By contrast, what characterizes a *prisoners' dilemma* is a divergence of incentives. The parable commonly attached to the game is as follows. Two suspects are hauled in by the police for a bank robbery. Without a confession, the authorities have insufficient evidence to convict the two, although they could convict them of a lesser crime. The police interrogate the criminals in separate rooms and propose a deal to each: if you turn state's evidence and testify against your cohort, you go free, and we throw the book at him. The resulting matrix looks like figure 6–3. In this case, each prisoner has a private incentive to confess, whereas the "social optimum" is for both to hold firm, in the sense that such steadfastness minimizes the total number of years in prison. Because of the private incentive to confess—both to lower one's own sentence and to insure against confession by one's compatriot—the solution of such a game played once is for both to confess,[8] a result that maximizes total years in prison. If, however, the game is played repeatedly, and neither of the players knows when the game will end, there may emerge a *norm* of reciprocity, according to which the players refrain from confessing despite the private incentive to do so.

Like a convention, a prisoners' dilemma norm is an institution with an information function. It substitutes for the costly direct communication and negotiation between the players that might otherwise facilitate agreement on the joint-miximizing solution. Unlike a coordination convention, however, a norm of this sort is not completely self-enforcing. Whenever the players face an end-game, the discipline of repeated play evaporates, and the private incentives loom large.

		Player 1	
		Hold firm	Confess
Player 2	Hold firm	-2 -2	0 -10
	Confess	-10 0	-7 -7

Figure 6–3. A prisoners' dilemma game.

Thus, prisoners' dilemma situations often call for some sort of external policing mechanism. For example, businesses can usually be expected to adhere to their contracts out of fear of harming their reputations and losing future business (Klein and Leffler, 1983); but if the private incentive for breach of contract becomes great enough, the contract leaves the "self-enforcing range," and the parties may find themselves in court. We should distinguish, however, between privately rational reciprocity enforced by repeated play and the idea of a norm proper. In many situations, people follow norms of behavior—like honesty—even in end-game situations. One often tells the truth even when lying would be costless and privately beneficial. The reason is that norms of this sort are often internalized to form a part of culture. They are, in effect, instances of the tacit rule following I mentioned earlier. After repeated play of a prisoners' dillemma game by many different individuals, the original game situation and the sanctions of repeated play are forgotten. Only the norm remains. In this sense, the norm is *itself* an enforcement mechanism. This is not to say that a norm must always emerge or that the mechanism of repeated play must always solve the prisoners' dilemma in happy fashion. There are far too many examples of social situations in which norms have collapsed or failed to emerge and in which the dilemma of this game is all too real. It is a major task of research in this area to understand the circumstances under which efficiency-enhancing norms will in fact emerge.

By now it should be obvious why a game-theoretic approach is not at all incompatible with a causal-genetic approach. The idea of repeated play of the game implies a process over time. And, although formal game theory in its resplendent glory treats repeated games in an equilibrium framework, the theory of social institutions need not. What substitutes for the idea of an equilibrium strategy is the notion of an evolutionarily stable strategy, a concept borrowed from biologists who have adapted game-theoretic models to natural evolution (Maynard Smith, 1982).

Perhaps the best example of evolutionary game-theory modeling is the much-discussed work of Robert Axelrod (1984). Axelrod invited prominent game theorists to submit algorithms for solving the repeated prisoners' dilemma game. These he tested by a computer tournament in which the algorithms were pitted against one another. The frequent winner was one of the simplest: the tit-for-tat strategy. Under this strategy, a player initially cooperates (doesn't confess); however, whenever the other player fails to cooperate (confesses) in any period, the first player "punishes" the rival by also failing to cooperate for one period. One can think of this strategy as a kind of norm.

This discussion has merely scratched the surface, of course. Many

important issues remain. When will efficient strategies emerge that are evolutionarily stable? What is the precise nature of the selection process? What are the respective roles of imitation and selection? To what extent does group selection operate? What is the cultural analogue of genetic memory? Addressing these and similar issues forms a large part of the ongoing research program of a theory of institutional evolution. But the details of evolutionary theory are the subject of another chapter in this volume.

The Evolution of Organizations

With its roots in Menger and its more recent elaboration by Hayek, the theory of spontaneous orders is relatively well known within Austrian economics. By contrast, there has been remarkably little work within the Austrian tradition on the theory of organizations. One class of organizations comprises the institutions of government. This area of inquiry has fallen to the Public Choice theorists, with whom many Austrians are broadly sympathetic. James Buchanan, the father of Public Choice theory, is in many ways a bridge between the Public Choice school and the Austrian tradition. Nonetheless, Public Choice theory has always stood within the boundaries of neoclassical theory (especially the Chicago School variant), and has availed itself little of those insights one would consider distinctively Austrian. The same may be said of another sort of organization to which Austrians have paid comparatively little attention: the business firm. I want to examine this second case in some detail and to argue that, although there is really no Austrian theory of the firm, a number of strands now developing should be attractive to writers in the Austrian tradition. Moreover, this developing theory of the firm would benefit greatly from a more explicit admixture of characteristic Austrian insights and perspectives.

In many respects, one can think of the theory of the firm—or of any organization—as an extension of the theory of social institutions outlined above. An organization is also a system of rules of conduct. In comparison with the rules of an order, the rules of an organization are concrete: rather than facilitating many different purposes, they are focused on achieving certain specific goals. Yet, the rules of an organization are similar to those of a more abstract institution in the sense that we can view them as evolving in much the same way and as having many of the same informational benefits.

The seminal work in the modern theory of the firm as organization—as

distinct from the neoclassical portrayal of the firm as production function—is that of Ronald Coase (1937).[9] Coase begins by considering a more abstract institution: the spontaneous order of the price system. As many writers before and since have argued, the price system is a set of conventions that provides rather marvelous information and coordination functions. In view of the remarkable qualities of this institution, Coase wonders, why do we observe some transactions to be removed from the price system and carried out within the business firm?[10] The answer: there must be a cost to using the price system. Since a cost is a foregone benefit, this implies that there is a benefit to using an institution alternative to—or, at any rate, additional to—the price system at its most abstract. Wherein lie the benefits of such institutions? Although I cannot make the case here, it is arguable that Coase saw the benefits in terms of improved coordination and flexibility in the face of changing circumstances.[11]

The Coase-inspired literature that has blossomed since the 1970s casts these benefits in a rather different light, however. Rather than seeing the firm as a coordinating institution, theorists have focused on the role of the firm in solving prisoners' dilemma-like problems. As Alchian and Woodward (1989) have pointed out, the modern transaction-cost theory of the firm, as this literature is called, feeds from two different but related streams. One is the moral hazard or measurement cost approach (Alchian and Demsetz, 1972; Cheung, 1983; Barzel, 1982, 1987); the other is the asset specificity approach (Klein, Crawford, and Alchian, 1978; Williamson, 1985). In the first case, the abstract institution of the market generates transaction costs in situations in which the incentives of the cooperating parties diverge and monitoring is costly. In the second case, the market can lead to transaction costs when, in the presence of highly specific assets, one of the parties might threaten the other with noncooperation in order to extract a larger share of the quasirents of cooperation. In both cases, common ownership of the cooperating assets—that is to say, a firm—may avoid these transaction costs. Such extra-market arrangements would be most common when transactions are infrequent, since repetition and norms of reciprocity are then less able to support market exchange.

This body of theory has vastly enriched our understanding of the nature of and rationale for extra-market organization. It is my contention, however, that, by focusing on the prisoners' dilemma-like problems of markets, this theory has ignored a large, and perhaps even more important, set of institution-shaping forces. In other words, there is much to be gained by looking at organizations as responses to coordination problems.

Let us begin by returning to the observation that, like a more abstract institution, an organization is a system of rules of conduct. In the work of

Edith Penrose (1959) and G. B. Richardson (1972), and more recently of Nelson and Winter (1982) and David Teece (1980, 1982, 1986), one gets a picture of the firm as possessing certain "capabilities." That firms differ in their capabilities helps explain, as Coase once put it, "why General Motors was not a dominant factor in the coal industry, and why A&P did not manufacture airplanes" (Coase, 1972, 67). This is a way of looking at the firm that should appeal to writers in the Austrian tradition,[12] since it rejects the neoclassical portrayal of the firm's knowledge as explicit and easily transferable, a matter of "blueprints." To see firms as possessing limited and distinctive capabilities accords well with Hayek's (1945) insights about the decentralized nature of knowledge. Indeed, it is a vision of the evolution of the firm that also accords well with Hayek's writings on cultural evolution. Nelson and Winter (1982, chs. 4 and 5) are explicit in seeing capabilities as a matter of rules. The machines and personnel of a firm follow, invent, learn, and imitate routines that persist over time. As in Hayek's theory of culture, the routines are often tacit and skill-like, followed unconsciously because they produced success in the past. And it is these routines upon which the mechanism of selection operates.

As in the case of rules in abstract institutions, the rules in an organization serve a coordinating function. This may at first seem at odds with the thesis of Hayek (1945). Isn't the point of decentralized knowledge and the coordinating virtues of the price system that such a system is superior to central planning, especially in situations of economic change? There is no contradiction.[13] First of all, the capabilities view suggests that the internal workings of the firm are far less in the nature of conscious planning than popular accounts (e.g., Galbraith, 1968) would have it. Moreover, Hayek's argument is about the ability of the price system to coordinate multifarious plans. It is not an argument that the price system must always be a superior way to coordinate specific plans at what we may think of as a "lower" or more concrete level of the hierarchy.[14]

In arguing for the coordinating benefits of the price system, Hayek (1945, 523) pointed out that "economic problems arise always and only in consequence of change." And, indeed, the respective merits of firm and market as institutions of coordination appear most clearly when we consider economic change and the response to it.[15] Just as firms possess capabilities, so also can we think of markets as possessing capabilities, in the sense that one can choose to produce a good or service using one's internal capabilities or one can use the capabilities of others by acquiring the good or service on the market. When will internal organization prove superior to market procurement in a world of economic change? The answer depends (1) on the existing level of capabilities in the market and (2) on the nature of the innovation involved.

Situations in which existing market capabilities are limited, or in which those capabilities are ill-adapted to the innovation, would tend to favor internal organization, *ceteris paribus*. This effect would be more significant in the case of a systemic innovation, that is, an innovation that involves coordinating change in many different routines. Consider the case of the American automobile industry (Langlois and Robertson, 1989). In the early days of that industry, automobile makers were all assemblers, that is, they contracted for almost all the parts that went into the cars, reserving only the assembly stage for themselves. They could do this because the American economy—and the Detroit region in particular—possessed a high level of general-purpose machining and metal-working capabilities available in the market. The innovation of the moving assembly line at Ford, however, rendered these capabilities obsolete, in that Ford could mass-produce parts much less expensively than it could buy them on the market. Because Ford could not quickly and cheaply convey to suppliers the (partly tacit) nature of the innovation—which was in any case a slowly unfolding process—it was forced to integrate vertically into parts manufacture. It is in this sense, then, that an organization can be a coordinating institution: it can sometimes avoid the coordinating costs of informing, negotiating with, and persuading potential contracting parties who may not share one's faith in the proposed innovation or even, in a fundamental sense, one's view of the world (Silver, 1984; Langlois, 1988).[16] This suggests the importance of a neglected set of "transaction" costs in explaining the firm: the costs of changing one's capabilities, or to put it another way, the costs of not having the capabilities you need when you need them.

Economic change may also favor the market over internal organization. This might be the case when the existing level of capabilities is high in the market relative to those within the organization proposing to innovate. The market would also gain advantages when the innovation involved is largely autonomous, that is, when the innovation does not require change in many different routines. Consider the example of the IBM personal computer (Langlois, 1990b). In entering the PC market in the early 1980s, IBM understood both (1) that the market possessed a high level of capabilities and (2) that IBM's own capabilities were severely lacking. This latter was the case partly because the company had focused on larger computers and didn't possess all the capabilities necessary for smaller machines. But it was also and more importantly because the company's hierarchical structure, internal sourcing procedures, and elaborate system of controls made it too inflexible to respond well to a rapidly changing market. As a result, IBM chose in effect to disintegrate vertically into the production of PCs. They spun off a small group of executives and engineers,

exempted them from IBM internal sourcing and other procedures, and treated them as, in effect, a venture-capital investment. The original IBM PC was in fact almost completely assembled from parts available in the market, very few of which were produced in IBM plants. IBM's motives for *disintegration* were in this regard strikingly similar to Henry Ford's motives for *integration*: the need to access quickly capabilities that would not otherwise have been available in time. The coordinating virtues of the market here are very much those Hayek praised.

Summary

I have tried in this chapter to outline what an Austrian theory of social institutions would look like. My objective, however, has not been to be definitive; quite the opposite, I have tried to be suggestive and to point to new directions and to useful ideas from outside the areas of traditional Austrian interest.

At the center of this theory of social institutions is the notion of rule-following behavior. Institutions are systems of (often tacit) rules that provide information useful to behavior. Sometimes the rules a social institution embodies are quite general and abstract. Such institutions are social "orders." In other cases, the rules are concrete and directed toward more-or-less specific goals. Such institutions are "organizations."

The Austrian theory of social institutions—from Menger to Hayek—has focused primarily on social orders like language and law, money and morals. At the base of all these institutions are the fundamental phenomena of social conventions and social norms. I have argued that the modern game-theoretic approach to explaining conventions and norms is both consistent with and helpful to the Austrian theory.

Austrian theory has been almost entirely silent, however, on the subject of organizations. It is my contention that such organizations—like government and the business firm—can be understood in the same evolutionary terms as social orders. A useful starting point for an Austrian theory of the firm would be the transaction-cost approach of Ronald Coase and his followers, leavened with a number of Austrian insights, for example, notions of radical uncertainty and the decentralized character of knowledge. In particular, the existing literature focuses to its detriment on issues of incentives and neglects issues of coordination in explaining the evolution of organization.

Notes

1. Veblen (1898) set the tone by singling out Carl Menger for attack as his representative marginalist revolutionary.

2. Some of the discussion, I should note, is in terms not of Austrian institutionalism specifically but in terms of the New Institutional Economics (NIE). In my view (Langlois (1986b), these two approaches are—or at least ought to be—closely related. In what follows I will draw on insights from the NIE, but I will stress the Austrian aspects and influences. For an excellent survey of the NIE from a more neoclassical perspective, see Eggertsson (1990) I should also mention the important work of Douglas North, which has broadened considerably away from the strict neoclassical perspective in recent years (see, for example, North, 1990).

3. "By 'order' we shall throughout describe a state of affairs in which a multiplicity of elements of various kinds are so related to each other that we may learn from our acquaintance with some spatial or temporal part of the whole to form correct expectations concerning the rest, or at least expectation which have a good chance of proving correct." (Hayek [1973, 36], emphasis deleted.)

4. For a discussion of rule following and situation-constrained behavior as alternate modeling strategies, see Langlois and Csontos (1992) and Langlois (1990a).

5. These are all arguably quite different things, of course, and a full-blown theory of social institutions would have to account for the differences among them.

6. The notion of a hierarchy in the narrow sense may prove too rudimentary and confining a concept for capturing the interaction among systems of institutions, but it is a convenient starting point. (See, for example, Langlois, 1986a.)

7. The term Hayek uses, of course, is actually *spontaneous* order. I will restrict this term to a particular class of orders, namely those of organic origin.

8. Assuming the so-called Nash conjecture.

9. Coase came out of the London School of Economics in the 1930s, locus of a tradition with a number of Austrian influences and affinities. The often misunderstood writings of Frank Knight (1921) on this subject (Langlois and Cosgel, 1990) are also relevant.

10. In Coase's original formulation, he conceived of the dichotomy between firm and market in simple terms. A transaction uses the price system if the cooperating capital is separately owned and the intermediate product or service exchanged in an arm's-length arrangement. A transaction is carried out within a firm when the relevant cooperating capital is commonly owned and the operative contract is a more open-ended employment contract. However, it is clear that the categories are more complicated. On the one hand, separate capital owners might cooperate using an open-ended or "relational" contract; and, on the other hand, transactions within the domain of commonly owned capital—as between the divisions of a large firm—might be carried out using prices and simple arm's-length contracts. Those who look only at the contractual aspects are thus led to a kind of agnosticism about the very definition of the firm, a position we might call the nexus-of-contracts view (e.g., Cheung, 1983). Looking at ownership gives a clearer—and to the present author more appealing—definition of the firm. (On the latter view, see Hart, 1989.)

11. On Coase's own interpretation of his 1937 paper, and his criticisms of present-day theory, see Coase (1988).

12. In another sense, of course, the idea of a firm as a system of rules would not appeal to those modern Austrian writers who take their inspiration more from Ludwig von Mises than from Hayek. These writers, who tend to be more rationalist and who prefer to see economics in light of what Hayek called the Pure Logic of Choice, would tend to be suspicious of the very idea of rule-following behavior. (On these issues see Langlois, 1985.) Perhaps this helps explain the reluctance of Austrians as a group to take Hayekian insights into the theory of the firm.

13. For a contrary argument, see Minkler (1991).

14. On the hierarchical nature of plans, see Langlois (1986a).

15. This discussion follows Langlois (1992).

16. Notice that such coordination costs must be related to uncertainty and, in fact, to the kind of radical uncertainty one often reads about in the Austrian literature (Langlois, 1984).

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