

Institutional Economics into the Twenty-First Century*

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This essay considers the nature and evolution of both the old and the new institutional economics and considers the possibility of dialogue or even convergence between these schools. It also considers shifts of thinking inside and outside mainstream economics that have altered the conception of the economic agent, even within mainstream theory. In particular, the stipulation of endogenous preferences, once a hallmark of the old institutionalism, is gaining legitimacy within mainstream economics. In this context, the new institutional economics is evolving in a direction that makes productive dialogue between the two institutionalist traditions more possible.

(J.E.L.: B15, B25, B52)

1. We Are All Institutionalists Now

Across the social sciences, there has been a revived interest in institutions and in various institutionalist approaches to theory¹. A prominent sociological journal has noted “the current institutional turn across the social sciences” (Clemens and Cook 1999: 443-4) and similar references to an “institutional turn” are found in economic geography (Amin 1999), political science (Jupille and Caporaso 1999) and elsewhere.

Economists have been at the forefront of these developments. One of the most striking events has been the emergence of the “new institutional economics” in the last quarter of the twentieth century.

Explanations of economic growth and development used to focus on inputs, production functions and outputs, often neglecting the institutional structures that constrain or empower individuals, and frame their incentives and disincentives. The predominant mental model of economic activity, in both microeconomics and macroeconomics, was of factors of production – primarily capital and labour – as inputs into some mysterious production process, leading to flows of outputs. Accordingly, for a long time the firm

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¹ This essay uses some material from Hodgson (2004, 2005, 2007b). The author is very grateful for comments from an anonymous referee.

was treated as a “black box”, with little regard to the structural determinants of its existence, boundaries and performance.

However, the study of the firm changed dramatically when Oliver Williamson (1975), building on the earlier work of Ronald Coase (1937) and others, opened the black box to investigate the firm as an institution. Similarly, in a pioneering series of works, Douglass North (1981, 1990) has investigated the role of institutions in the historical development of the modern capitalism. Despite the past admonitions of Marxist critics, many mainstream economists used to treat the state as an instrument of the informed and benevolent policy-maker who is guided by the public interest. This naïve instrumental view of the state was gradually undermined by work in the area of public choice (Buchanan 1960; Niskanen 1971; Mueller 1979). The state also became an object of institutional analysis.

There are many other examples of important achievements in this area, too numerous to review here². The outcome is that institutions have become a central topic of analysis for economists.

This essay has six further sections. The next section looks back at the old institutional economics and considers its nature and evolution. Section 3 reviews the development of the new institutional economics since 1975. Sections 4-6 consider shifts of thinking inside and outside mainstream economics that have altered the conception of the economic agent, even within mainstream theory. In particular, the stipulation of endogenous preferences, once the hallmark of the old institutional economics, has now become legitimate within mainstream economics. Section 7 concludes the essay.

2. Earlier Traditions in Institutional Economics

The interest by economists in institutions is not new. Previously, both the German historical school (which thrived from the 1840s to the 1930s) and the American institutionalists (which were dominant in America in the interwar period) had made the nature and economic role of institutions a central topic of investigation and analysis. Today these schools are often ignored. Even worse, they are sometimes wrongly described as atheoretical or anti-theory, neglecting important theoretical contributions by Gustav Schmoller, Thorstein Veblen, Wesley Mitchell, John R. Commons and others³.

The old institutional economics and the German historical school were broad and heterogeneous movements. Their members adopted a variety of philosophical, theoretical and policy positions. The German historical school

² A selection of anthologies and overviews could include Furubotn and Richter (1997), Ménard (2000), Hodgson (2003b), Schmid, (2004), and Ménard and Shirley (2005).

³ See Hodgson (2001, 2004) and Rutherford (2001) for discussions of these earlier traditions and their theoretical achievements.

were united by a concern to make economic theory sensitive to particular cultural and historical conditions. However, for some this meant a descent into data-gathering, in the belief that theory would eventually emerge from systematically collated evidence. After Carl Menger launched an attack on the German historical school in the *Methodenstreit* in the 1880s, younger members of the historical school such as Schmoller and Sombart gave more priority to the development of a systematic theoretical framework. Their work inspired Max Weber, Joseph Schumpeter and many others. Sadly the tradition foundered because of the rise of Nazism and the destruction of German institutions in the Second World War.

The American institutionalists drew much inspiration from Veblen, their main founder. They retained his emphasis on the central analytical importance of institutions and institutional change, and endorsed his rejection of hedonist psychology. They also insisted that markets themselves are institutions, and are constituted in part by the action of the state. Another prominent theme in their writings is a notion of endogenous preferences: individual preferences cannot generally be taken as given but must be regarded as partly moulded by institutional and cultural circumstances. They also embraced an empirically driven view of scientific enquiry, and a policy focus on remedial action by the state to deal with poverty, unemployment and business recessions.

The notion that individual tastes and preferences are moulded by circumstances is frequently criticised as a concession to structural or cultural determinism. The mistake is to make the individual a puppet of the social or cultural context. Admittedly, some old institutionalists have promoted such a view. However, such exclusively “top down” ideas are not common to all old institutionalists. For instance, Veblen (1919: 243) argues that changes in “the institutional fabric are an outcome of the conduct of the individual members of the group” while at the same time “these institutions act to direct and define the aims and end of conduct”. In the writings of Veblen and Commons there is both upward and downward causation; individuals create and change institutions, just as institutions mould and constrain individuals. The old institutionalism is not necessarily confined to the cultural and institutional determinism with which it is sometimes associated.

Veblen’s founding approach was based on the pragmatist philosophy of Charles Sanders Peirce and others, and the instinct-habit psychology pioneered by William James. Veblen also argued that economics should be an “evolutionary science”, driven by the general principles of Darwinism. The evolution of institutions and culture was seen as a Darwinian process, where habits and institutions were units of selection, without reducing their evolution to biological terms.

However, in America by the 1930s pragmatist philosophy had been sidelined by forms of positivism, instinct-habit psychology had been displaced by

behaviourism, and the use of evolutionary and Darwinian ideas in the social sciences had become enormously unpopular (Degler 1991). Three major intellectual pillars of Veblenian economics had been removed. This led to a deep theoretical crisis within American institutionalism as a whole. Leading institutionalists failed to respond adequately to penetrating questions concerning the theoretical thrust and identity of institutionalism at round table discussions published in the *American Economic Review* in 1931 and 1932. John R. Commons (1934) attempted to provide institutional economics with a systematic theoretical framework, but his task was made nigh impossible by recent seismic shifts in the philosophical and psychological foundations of the social sciences.

The Second World War helped to change the character of economics, giving greater prominence to the neoclassical paradigm of maximization under constraint, and more prestige to mathematics and formal modelling (Bernstein, 2001; Mirowski, 2002). With the rise of the “neoclassical synthesis” of Walrasian general equilibrium analysis with a pseudo-Keynesian macroeconomics (Samuelson 1947, 1948), institutionalism became marginalized.

However, despite its decline of influence after 1945, the older institutional economics survived. It was promoted by leading postwar figures such as Clarence Ayres, John Kenneth Galbraith, Simon Kuznets, Gunnar Myrdal, and Karl Polanyi. As a measure of the continuing vitality of this older tradition, Kuznets and Myrdal both received Nobel prizes in economics in 1971 and 1974 respectively.

3. Evolution in the New Institutional Economics

Williamson coined the term “new institutional economics” in 1975. The adjective was chosen deliberately to distance the newer approach from the old institutionalism. With the partial exception of Commons, Williamson has disclaimed theoretical links between his work and the earlier American institutionalism. However, in some respects the new institutionalism draws on much earlier ideas.

In the 1970s and 1980s, a prominent theoretical project in the “new institutional economics” was to explain the existence of political, legal, or social, institutions by reference to a model of given, individual behaviour, tracing out its consequences in terms of human interactions. The attempted explanatory movement is from individuals to institutions, ostensibly taking individuals as primary and given, in an initial institution-free “state of nature”.

This mode of argument is traceable back to Menger (1871) who pioneered a basic analysis of how institutions evolve. He saw many institutions emanating in an unplanned and unforeseen process, from the rational decisions and interactions of individual agents. Accordingly, he saw money as emanat-

ing in an undesigned manner from the interactions of individual agents. He started with a barter economy and its well-known problem of a lack of a general “double coincidence of wants”. To deal with this problem, traders look for a convenient and frequently exchanged commodity to use in their exchanges with others. Once such usages become prominent, a circular process of institutional self-reinforcement takes place. Emerging to overcome the difficulties of barter, prototypical money is chosen because it is a frequently used commodity, and its use becomes all the more frequent because it is chosen. Money is chosen because it is convenient, and it is convenient because it is chosen. This circular positive feedback leads to the emergence of the institution of money.

Menger’s argument was intended as a heuristic model, not as a historically accurate depiction of how money actually evolved. His aim was to show that some institutions, including money, have strong spontaneous and self-reinforcing properties. Once convenient regularities emerge, a circular process of institutional self-reinforcement can take place. Apart from the emergence of money, other examples in this literature include driving on one side of the road and traffic conventions at road junctions (Elster 1989; Schotter 1981; Sugden 1986; Ullmann-Margalit 1977; Young 1996). For instance, once the convention of driving on the left of the road is established, it is clearly rational for all drivers to follow the same rule.

In the above cases, the typical starting point is a set of individuals with given preference functions. Although in many cases it is a dispensable assumption, it is often regarded as necessary or desirable. This focus on individuals as the ultimate elements in the explanation is evident, for example, in North’s (1981) theory of the development of capitalism, Coase’s (1937) and Williamson’s (1975, 1985) transaction cost analysis of the firm, and Schotter’s (1981) game-theoretic analysis of institutions, although the assumptions and analytical frameworks differ in each case⁴. Generally, the proposal is to start with given individuals and their interactions, and from that starting point to move on to explain institutions⁵.

Substantial heuristic insights about the development of institutions and conventions have been gained on the basis of the assumption of given, rational individuals. The problem is the incompleteness of this research program in its attempt to provide a general theory of the emergence and evolution of institutions.

⁴ It should be noted that Coase (1984: 231; 1991: 52) is exceptional in his emphasis on the importance of the realism of assumptions about individuals and his rejection of the view that rational choice models can be justified simply by the predictions they yield. In his consistent denial of the assumption of rational choice, Coase differs both from mainstream economics and much of the new institutional economics as well.

⁵ Whether this approach is defined as “methodological individualism” or not depends on the adopted meaning of this term. On its ambiguities and problems see Hodgson (2007a).

Alexander Field (1979, 1981, 1984) advanced a fundamental criticism. In attempting to explain the origin of social institutions, the new institutional economics has to presume given individuals acting in a certain context. Along with the given individuals, there are rules of behaviour governing their interactions. What is forgotten is that in the original, hypothetical, “state of nature” from which institutions are seen to have emerged, a number of weighty rules, institutions and cultural and social norms have already been presumed. These original institutions, roles and norms are unavoidable. Even in an unreal “thought experiment” we can never properly envisage an original “state of nature” without them.

In attempts to explain the origin of institutions through game theory, some norms and rules must be presumed at the start. There can be no games without rules, and thus game theory can never explain the elemental rules themselves. As Field (1984: 703) argues:

“Game theorists sometimes become so enamored of the mechanics of the theory and the single-minded determination of their players to win that they lose sight of what any game-theoretic problem presupposes: the arena in which the players are to compete or cooperate. ... it is theoretically possible to develop for the game of chess ... a theory that would predict what actions a rational opponent interested in winning would undertake given the layout of the board and the next move one makes. But one will not obtain ... an explanation for why knights move in an L-shaped pattern or bishops move diagonally. Similarly, although one can investigate with game theory the dilemmas possibly faced by two prisoners, one should not expect from such a theory an explanation for why escape or insurrection is not part of the strategy space”.

Even in a sequence of repeated games, or of games about other (nested) games, at least one game or meta-game, with a structure and payoffs, must be assumed at the outset. Any such attempt to deal with history in terms of sequential or nested games is thus involved in a problem of infinite regress: even with games about games about games to the *n*th degree there is still one preceding game left to be explained.

As another example, Williamson’s transaction cost theory of the firm takes its original state of nature as the market. He writes that “in the beginning there were markets” (Williamson, 1975: 20; 1985: 143). From this starting point, some individuals go on to create firms and hierarchies, which endure if they involve lower transaction costs. However, there is insufficient recognition that the market itself is an institution, involving complex rules. Some new institutional economists retain the mainstream belief that the market is the universal ether of human interaction, rather than a historically specific social institution. In reality, markets involve social norms and customs, instituted exchange relations, and information networks that have to be

explained (Hodgson 1988; Vanberg 2001). Markets are not an institution-free beginning. Hence Williamson fails to explain the emergence of the firm from an institution-free “state of nature”.

The institution of private property also requires explanation. Williamson addresses the latter problem with in argument that property can emerge through “private ordering”, that is, individual-to-individual transactions, without state legislation or interference (Williamson 1983). Against this, the possibility of property and contract in a complex society without any role for the state has been challenged by writers within the new institutionalist tradition (Sened 1997; Mantzavinos 2001).

There is an even more fundamental objection. Even if the state is absent, individuals rely on customs, norms, and language, in order to interact. Language itself is an institution. Interpersonal communication, which is essential to all stories of institutional emergence, itself depends on linguistic and other rules and norms. For instance, the shared concept of individual property requires some means of communication using common concepts and norms, both before and after explicit or tacit recognition of property rights can be established. Even if the state can be absent from these processes, some prior institutions are still required.

Individual choice furthermore requires a conceptual framework to make sense of the world. The reception of information by individuals requires paradigms or cognitive frames to process and make sense of that information. We cannot understand the world without concepts and we cannot communicate without some form of language. As the old institutionalists argue, the transmission of information from institution to individual is impossible without a coextensive process of *enculturation*, in which the individual learns the meaning and value of the sense-data that is communicated. The transmission of information between agents *always and necessarily* involves such a process of *enculturation* (Hodgson 1988, 1998). In general, the new institutional economists have devoted insufficient attention to this point. Overall there are good reasons why the starting point of a given individual is generally misconceived.

What is being contested here is the possibility of using given individuals as the institution-free starting point in the explanation. Institutions are structures that constrain, influence and enable individuals. Accordingly, if there are institutional influences on individuals and their goals, then these are worthy of explanation. In turn, the explanation of those may be in terms of other purposeful individuals. But where should the analysis stop? The purposes of an individual could be partly explained by relevant institutions, culture and so on. These, in their turn, would be partly explained in terms of other individuals. But these individual purposes and actions could then be partly explained by cultural and institutional factors, and so on, indefinitely. We are involved in an apparently infinite regress, similar to the puzzle “which came

first, the chicken or the egg?” Such an analysis never reaches an end point. It is simply arbitrary to stop at one particular stage in the explanation and say “it is all reducible to individuals” just as much as to say it is “all social and institutional”. As Robert Nozick (1977: 359) remarks in his critique of methodological individualism: “In this apparent chicken and egg situation, why aren’t we equally methodological institutionalists?” The key point is that in this infinite regress, neither individual nor institutional factors have legitimate explanatory primacy. The idea that all explanations have ultimately to be in terms of individuals (or institutions) is thus unfounded.

There is thus an unbreakable circle of determination. This does not mean, however, that institutions and individuals have equivalent ontological and explanatory status. Clearly, they have different characteristics. Individuals are purposeful, whereas institutions are not, at least not in the same sense. The life spans of institutions are different from those of individuals, sometimes enduring the passing of the individuals they contain. Their mechanisms of reproduction and procreation are very different.

All theories must first build from elements which are taken as given. However, the argument here undermines any “new institutionalist” claim that the explanation of the emergence of institutions can start from some kind of institution-free ensemble of (rational) individuals in which there is supposedly no rule or institution to be explained. At the very minimum, new institutionalist stories of the development of institutions depend upon interpersonal communication of information. And the communication of information itself requires shared conventions, rules, routines and norms. These, in turn, have to be explained. Consequently, the new institutionalist project to explain the emergence of institutions on the basis of given individuals runs into difficulties, particularly with regard to the conceptualization of the initial state from which institutions are supposed to emerge.

This does not mean that new institutionalist research is without value, but it suggests that the starting point of explanations cannot be institution-free: the main project has to be reformulated as just a part of a wider theoretical analysis of institutions. The idea of tracing how institutions emerge from an imaginary world with individuals but without institutions is misconceived. What is required is a theory of process, development and learning, rather than a theory that proceeds from an original “state of nature” that is both artificial and untenable.

In his 1989 lecture on receipt of the Nobel Prize, the econometrician Trygve Haavelmo (1997: 15) identified the error of always starting from the individual. He argued that

[...] “existing economic theories are not good enough ... We start by studying the behavior of the individual under various conditions of choice. (...) We then try to construct a model of the economic society in its totality by a so-

called process of aggregation. I now think this is actually beginning at the wrong end. (...) Starting with some existing society, we could conceive of it as a structure of rules and regulations within which the members of society have to operate. Their responses to these rules as individuals obeying them, produce economic results that would characterize the society”.

Haavelmo rightly suggests that historically specific institutions should be brought into the analysis at the beginning. Such a reformulated institutionalist project would stress the evolution of institutions, in part from other institutions, rather than from a hypothetical, institution-free “state of nature”.

A number of significant recent studies have developed in this direction. Accordingly, Jack Knight (1992) criticizes much of the new institutionalist literature for neglecting the importance of distributional and power considerations in the emergence and development of institutions. Even more clearly, Masahiko Aoki (2001) identifies the problem of infinite explanatory regress in much of the former literature and develops a novel approach. He not only takes individuals as given, but also a historically bestowed set of institutions. With these materials, he explores the evolution of further institutions, using game theory. Instead of focusing on two points in time – the given starting point and the evolved outcome – the next step, which Aoki recognizes but does not fully complete, is to develop a more evolutionary and open-ended framework of analysis.

4. The Changing Face of Mainstream Economics

The neoclassical synthesis held sway until the 1970s. It was undermined by the combination of an assault on its “Keynesian” presuppositions at the macro level, and the revelation of insurmountable theoretical problems in its general equilibrium framework at the micro level (Kirman 1989; Rizvi 1994).

Subsequently game theory replaced general equilibrium theory at the cutting edge of mainstream economics. This meant the abandonment of the project to develop a universal theory of all economic interactions, which general equilibrium theory previously represented. The results of game theory are rarely universal; they depend on the particular rules and mode of play of the game. Instead of everything interacting with everything else in a continuous universal field of infinite connections, game theory assumes a structured world of binding rules and limited interconnectedness (Potts 2000). Game theory is generally more accommodating to ideas such as institution, convention and rule (Schotter 1981; Sugden 1986). Furthermore, game theory has revealed that standard neoclassical definitions of rationality are problematic, and in some contexts rationality is capable of different meanings (Sugden 1991; Hargreaves Heap and Varoufakis 1995; Gintis 2000).

However, full-blown models of individual interaction in game theory, where every possible human interaction and defined response is considered, and every agent is assumed that every other is fully rational, have fallen into widely acknowledged problems of tractability and relevance. In response, some have hinted at an altered direction of research. As Kirman (1999a: 10) has pointed out: “the notion that the structure of the economy, rather than just the parameters of the structural relationship, might be substantially modified over time has received little formal attention”. What cries out for inclusion is an explicit notion of social structure, limiting the available information and human interactions, and thereby restricting the number of possible outcomes in the model. In a pioneering essay, Kirman (1999b: 37) tried to show that

[...] “models which take account of the direct interaction between agents allow us to provide an account of macro phenomena which are caused by this interaction at the micro level but are no longer simple blown up versions of individual activity. The network through which the interaction is mediated plays an important role and, the nature of the macroeconomic behaviour will depend on whether interaction is global in the sense that individuals may interact with each other, or whether the interaction is determined by a specific communication structure”.

Instead of the macro economy being treated as a “blown up” representative individual (Kirman 1992), social structure has to be introduced in a population of heterogeneous individuals. This is an open door for institutional analysis, whether of a formal or non-formal kind. Indeed, if suitably contrived, both modes of research can usefully complement each other.

Another important development is the rise of experimental economics. The pioneering contributions of Daniel Kahneman, Vernon Smith and others have led to a major shift in mainstream economic thinking, involving an evidence-based challenge to the previously supreme concept of rationality (Kahneman 1994; Kagel and Roth 1995). Experimental economics has dramatized the institutional texture of social reality. Within experiments, markets have to be treated not as the abstract and universal ether of human interaction but as designed systems of rules. Experimental economists, in simulating markets in the laboratory, have also to face the unavoidable problem of setting up a specific institutional structure with procedural rules. As Smith (1982: 923) wrote: “it is not possible to design a laboratory resource allocation experiment without designing an institution in all its detail”. Experimental economics can therefore challenge the idea that the abstract market is a universal forum of human interaction, free from any specific rules.

While experimental economics has underlined the requirement of structured individual interactions, it has pointed to a situated rather than context-independent conception of rationality. On the basis of extensive experimen-

tal observations, Smith (1991: 881, 894), has gone so far to consider how “institutions serve as social tools that reinforce, even induce individual rationality” and “how decision making is mediated by institutions”. Smith concluded that rationality does not emerge on the basis of cognition alone, but only through “ongoing social interaction with other agents”.

Also reviewing the results of experimental economics, Graham Loomes (1998: 486) proposes that generalized rational preferences should be replaced by “rules of thumb specific to the particular structure of the decision task in hand”. On the basis of experimental evidence, Loomes (1999: F37) rejects the idea that “that people come to problems armed with a clear and reasonably complete set of preferences, and process all decisions according to this given preference structure”. Both modern experimental economics and game theory have revealed the limitations of all-purpose, context-independent rationality.

Finally, the increasing use of simulations and agent-based models in economics brings some similar lessons (Judd and Tesfatsion, 2006). In specifying the decision-rules of artificial agents, the universal canons of rationality are of little use. Instead one has to specify the particular data inputs and decision algorithms. Furthermore, an agent-based model is a system with unpredictable, emergent properties that cannot be reduced to properties of individual agents (Lane 1993; Gallegati and Kirman 1999; Kirman and Gérard-Varet 1999).

I am not trying to paint a completely optimistic picture concerning developments in mainstream economics. Regrettably, formalism stifles much substance, and economics has fragmented into separate technical specialisms, to the extent that broader conversation and deeper methodological enquiry are thwarted (Hodgson 2007b). Nevertheless, various developments, including outside economics itself, have created new opportunities.

5. Changing the Economic Mind

Consider, for example, some recent work in psychology and elsewhere that has moved away from the “deliberative thinking paradigm” (Maes 1991) that dominated postwar cognitive psychology. Researchers have argued that this paradigm downplays both the temporal and the situated aspects of human reason. Instead of assuming that individuals proceed largely by building representative models of their world in their brains, they have emphasized that human cognition depends on its social and material environment and the cues provided by structured interactions with individuals and artefacts. Human cognitive capacities are thus not reducible to individuals alone: they also depend upon social interactions and structures. Scholars in this area have developed concepts such as “distributed cognition”, “situated cognition” and “communities of practice”⁶.

This paradigm shift involves a move away from the idea of the mind as an independent rational deliberator, toward a view of the mind as a controller of embodied activity located in a larger system that includes the body and its social and physical environment. For each individual agent, the material and social context of activity helps to constitute meaning and action. Thought and action are inseparable from their context. In teamwork, for example, individual activity is cued and enabled by its situation, including the behaviours of others. Appropriate cues call forth bursts of activity, which in turn create a new situation, and new cues for action (Cohen and Bacdayan 1994; Hodgson 2003a).

The neoclassical idea of the primary and given self, with its all-purpose rationality, is undermined by these developments in psychology. The adoption of a context-dependent, situated rationality is consistent with an institutional economics in which agency and structure are both important and mutually constitutive. Reasoning is impossible without, and inseparable from, its institutional and material context.

These developments are slowly beginning to affect economics. For example, Douglass North has insisted on the general importance of understanding the context and processes of cognition. In his Nobel lecture, North (1994: 362) cautioned on the limits of the rational-choice framework and pointed to the following perspective:

[...] “History demonstrates that ideas, ideologies, myths, dogmas and prejudices matter; and an understanding of the way they evolve is necessary for further progress in developing a framework to understand societal change. (...) Learning entails developing a structure by which to interpret the varied signals received by the senses. The initial architecture of the structure is genetic, but the subsequent scaffolding is a result of the experiences of the individual. (...) The structures consist of categories – classifications that gradually evolve from earliest childhood to organize our perceptions and keep track of our memory of analytic results and experiences”.

North (1994: 363) then linked these “classifications” and “mental models” – which we use to explain and interpret our environment – with their institutional and cultural context:

“A common cultural heritage provides a means of reducing the divergence in the mental models (...) and constitutes the means for the intergenerational transfer of unifying perceptions. (...) Belief structures get transformed into

⁶ See Brown and Duguid (1991), Donald (1991), Lave and Wenger (1991), Hutchins (1995), Hendriks-Jansen (1996), Clark (1997a, 1997b), Wenger (1998), Nooteboom (2000), Lorenz (2001), Nelson and Nelson (2002).

societal and economic structures by institutions – both formal rules and informal norms of behavior. The relationship between mental models and institutions is an intimate one. Mental models are the internal representations that individual cognitive systems create to interpret the environment; institutions are the external (...) mechanisms individuals create to structure and order the environment”.

This recognition of social influences on individual cognition places North very close to the old institutionalist tradition (Groenewegen *et al.* 1995; Rutherford 1995; Syll, 1992). The idea that institutions or a “common cultural heritage” can somehow reduce divergences between the mental models held by different individuals, or otherwise effect individual beliefs or goals, leads us back to a theme in the old institutional economics.

6. Endogenous Preferences

North is one of several leading economists who now admit endogenous and situation-dependent preference formation in economics (Akerlof and Kranton 2005; Bowles 1998, 2004). In contrast, from the 1940s to the 1990s, the concept of endogenous preferences was criticised as theoretically unnecessary within economics and even inconsistent with its basic theoretical approach (Stigler and Becker 1977). The rehabilitation of endogenous preferences is a major development and brings us back to a major theme of the old institutional economics.

All processes of rational decision-making depend on acquired cognitive frames for the selection, prioritization, interpretation and understanding of the huge volume of sensory stimuli that reaches the human brain (Hodgson 1988; North 1994). The attribution of meaning to this apparently chaotic mass of data requires the use of acquired concepts, symbols, rules and signs. It is significant that artificially intelligent systems in moderately complex environments require framing procedures to structure the incoming information (Pylyshyn 1984, 1987). Any form of rationality in a minimally complex environment relies on cognitive framing, selection and interpretation to make sense of its information inputs.

These rules and means of categorization and understanding have to be learned in a social context. This learning is sometimes entirely tacit and involves unconscious reactions to stimuli (Polanyi 1967; Reber 1993). Through a combination of conscious and unconscious processes, socialization and education help to create the cognitive apparatus that is necessary for “rational” or any other processes of decision-making. Rationality is not prior to, but requires, an existing social structure. Individual rationality depends on cultural and institutional mechanisms and supports.

Human reasoning capacities are thus linked to their evolving social and

biological contexts. Rationality is not detached from the world; it is situated in and operates through specific cues, triggers and constraints. These structures and circumstances are part of our biological and social heritage. As Andy Clark (1997a: 269) elaborates:

“These external structures and circumstances act as filters and constraints on the spaces of possible real-time responses. Paramount among such structures and circumstances, in the case of human reason, are the cultural artefacts of language and of social and economic institutions. Models of rational decision making need to situate the reasoning agent as just one element in a complex and time-sensitive feedback system in which such external structures play a major role. It is therefore crucial that we understand the complex and mutually modulatory interplay between individual cognition and the extended environmental loops in which it participates”.

The idea of endogenous preferences ties in with a more open-ended and evolutionary approach. If in principle every component in the system can evolve, then so too can individual preferences. Of course, most economists recognise that preferences are malleable in the real world. But they have often taken the assumption of fixed preferences as a reasonable, simplifying assumption. However, some malleability of preferences may be necessary to explain fully the evolution and stability of institutions. Institutional stability may be reinforced precisely because of the reconstitutive capacity of institutions to change preferences (Hodgson and Knudsen 2004).

It is one thing to claim that institutions affect individual preferences; it is another to explain in detail the causes and effects. The most satisfactory explanation of the relevant processes in the writings of the old institutionalists was in the writings of Veblen (1919) who emphasized the way in which circumstances and constraints led to the formation of habits, which in turn provided the grounding for changed preferences and beliefs. Through the individual mechanism of habit, the framing, shifting and constraining capacities of social institutions give rise to new perceptions and dispositions within individuals.

Institutions are enduring systems of socially ingrained rules. They channel and constrain behaviour so that individuals form new habits as a result. People do not develop new preferences, wants or purposes simply because “values” or “social forces” control them. What does happen is that the framing, shifting and constraining capacities of social institutions give rise to new perceptions and dispositions within individuals. Upon new habits of thought and behaviour, new preferences and intentions emerge. As a result, shared habits are the constitutive material of institutions, providing them with enhanced durability, power and normative authority.

The mechanism through which culturally and institutionally specific rules

of cognition and action become imprinted in the human mind is through the formation of habits. All reason, deliberation and calculation depend upon the prior formation of habits. Acquired habits of thought involving categories and logical rules are necessary for “rational” behaviour. Habits are formed through repeated thoughts or behaviours in a specific type of social setting. Issues of behavioural reinforcement or constraint may also be important here, but they relate to how and why behaviour comes to be repetitive. Habits are individual neural connections and mechanisms, but they bear a social imprint. Reconstitutive downward causation, from specific social structure to individual, operates by creating and moulding habits.

The rediscovery of the role of habit in human behaviour and the realisation of the powerful role of institutional constraints, together point to the development of a research agenda focused on the reconstitutive effects of institutions on individuals, and on the degree to which institutional evolution may depend on the formation of concordant habits (Hodgson and Knudsen 2004).

However, just as the individual cannot reason or act without a prior repertoire of habits, some conditions and triggers are necessary for habits to be formed. Social institutions mould habits; but that is not sufficient to explain the formation of habits themselves. The infant individual has to be “programmed” to discern and respond to specific stimuli so that the repeated behaviours that lead to the formation of habits can become possible. This is where instincts come in. Any “programming” involves inherited instincts, which have slowly evolved over millions of years. The case of language illustrates this forcibly. Although language is largely built up through social interaction in a culturally specific context, the initial acquisition of language requires instinctive mechanisms (Pinker 1994). Language systems are so complex that their acquisition requires the initial help of instinctive triggers, notwithstanding the immense impact of culture and social environment on each individual. To some degree, this will inevitably be the case with other human capacities. To think and act in social and natural environments, some initial guidances and predispositions are necessary to identify key stimuli and trigger appropriate responses. Once a limited rule-system is in place, further habits and rules can be compounded onto this structure.

Overall, Veblen’s position is strikingly modern in the context of recent developments in philosophy, psychology, sociology, anthropology and economics. As noted above, Veblen was influenced by pragmatist philosophy. After being eclipsed for much of the twentieth century, pragmatism has re-emerged to become “if not the most influential, at least one of the fastest growing philosophical frameworks on the intellectual landscape” (Hands 2001: 214). In psychology, after the hegemony of behaviourism from the 1920s to the 1960s, Jamesian and other evolutionary approaches are now enjoying a renaissance in psychology (Degler 1991; Plotkin 1994, 1997). The

key Veblenian concept of habit has also re-emerged in modern psychology (Ouellette and Wood 1998; Wood *et al.* 2002; Wood and Neal 2007).

As Darwinian ideas are making a comeback in contexts outside biology, again Veblen's ideas appear strikingly modern. While embracing Darwinism, Veblen emphatically discarded the idea that explanations of phenomena can or should be reduced exclusively to biological terms. Instead, Veblen (1899: 188) suggested a multiple-level selection theory, where in addition to the natural selection of individuals in terms of their fitness, there was a "natural selection of institutions" as well. Veblen used of the concept of selection in a social context on numerous occasions. Veblen thus foreshadowed modern anthropological theories of "dual inheritance" where selection and information transmission operate at the cultural as well as the biological level (Boyd and Richerson 1985; Durham 1991; Richerson and Boyd 2004). This rehabilitation of Veblen puts emphasis on the philosophical, psychological and Darwinian foundations of his thought, and contrasts with former accounts where these are marginalized.

7. Conclusion

It has been shown above that there is a growing overlap in areas of research between the two institutionalist traditions. The individualism of the new institutional economics in its earlier forms is being challenged from inside as well as outside that school. Developments within the new institutionalism have also led to internal criticisms of ahistorical modes of analysis, and approaches that take the cognitive capacities of the individual as given.

These developments open up new grounds for a fruitful and exciting conversation between the old and the new institutionalism. The dialogue within economics is further augmented by the emergence of several other important schools of thought – including evolutionary economics and constitutional political economy – that have similarly focused on the nature and role of institutions. What emerges as "institutional economics" in the next few decades may turn out to be very different from what was prominent in the 1980s and 1990s, and it may trace its genealogy from the old as well as the new institutionalism⁷.

The growth of various forms of institutional economics coincides with a possible gestalt shift in the social sciences, away from conceptions of incremental change and equilibria in systems where everything potentially impinges on everything else, to a notion of limited interconnectedness within social systems essentially composed of structures and algorithmic process-

⁷ See Dequech (2002) and Hodgson (2002) on the convergence of some elements of the "new institutional economics" with older traditions of institutionalism.

es of rules (Ostrom 1986; Mirowski 1991; Crawford and Ostrom 1995; Potts 2000; Dopfer *et al.* 2004; Arthur 2006).

To complete this shift, however, the concept central to the discourse of economics must itself be interpreted in these terms: markets must themselves be regarded as specific institutions or systems of rules, rather than the universal ether of human interaction. Lingering but unsustainable treatments of the market as the natural, normal or ideal order persist in some parts of the new institutional economics. Here they have something to learn from older institutionalist traditions, economic sociology, modern developments in experimental economics and theories of market processes including auctions (Fligstein 1996; Smith 1992; Klemperer 1999). These demonstrate that there is universal entity such as “the market” but different market systems involving different structures and rules.

Where would a revived institutional and evolutionary economics stand in relationship to the neoclassical economics that prevailed for much of the twentieth century? In at least two senses, institutional economics is more general than neoclassical economics. First, at the centre of neoclassical economics is the idea of rational choice in the context of scarcity. The concept of scarcity is typically used in overly loose and general terms. What is important and universal is scarcity in a *relative* and *local* sense, concerning *immediate* availability of capacities and resources for an agent.

Following Herbert Simon (1957), it is now widely acknowledged that human computational and deliberative capacities are scarce (in a relative sense). For those that wish to employ them, human skills and competences are also of limited immediate availability (Pelikan 1992). Furthermore, especially since the rise of the new institutional economics, it is now realized that the essential institutional context of human activity cannot be established without costs: institutions are neither immediately available nor a free good. Institutional construction is costly, in terms of time, resources and human effort. The old institutional economics also recognized the computational limitations of the human brain, the importance of institutions, and the costs and difficulties involved in their establishment and maintenance (Veblen 1919; Hodgson 2004). In these senses, *both deliberative rationality and social institutions are scarce* (Pagano 2000). Consequentially, institutional economics involves an extension and deeper understanding of the principle of relative scarcity and thus, in this respect at least, is more general than the neoclassical position.

Furthermore, because rationality always depends on prior habits and instincts as props, rational optimization alone can never supply a complete explanation of human behavior and institutions (Vanberg 2002). For this reason, neoclassical economics is a restricted explanatory discourse; it assumes rationality without explaining its genesis. In contrast, an institutional economics with evolutionary credentials may take the more general starting

point of Darwinian evolution, thereby explaining the ubiquity and primacy of habits, instincts and rules.

Sidney Winter (1971) has argued that neoclassical economics is a special case of the behavioural economics of Simon (1957) and others. Institutional economics attempts to add to behavioural economics an explanation of the cultural evolution of the heuristic rules of decision-making that are employed by boundedly rational agents. On these additional grounds, both behavioural economics and neoclassical economics are special cases of institutional economics. As the Indian old institutionalist Radhakamal Mukerjee (1940: 89) wrote: "Institutional economics deals not only with the abstract laws governing the relations between restricted or scarce goods and satisfactions or services, but also with the entire social and institutional structure". At its theoretical foundations, institutional economics has greater generality; it encompasses neoclassical economics as a special case, where the habitual and instinctive basis of rationality, along with much of the natural and institutional environment, are all taken as given, and where the principle of scarcity is not itself applied to human rationality and social institutions. Institutionalism is more general, in that it has a deeper explanatory scope and that scarcity is also applied to institutions and rationality.

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