

## INTRODUCTION TO F.A. HAYEK'S THEORY OF CULTURAL EVOLUTION: MARKET AND CULTURAL PROCESSES AS SPONTANEOUS ORDERS

DON LAVOIE

Associate Professor of Economics  
Center for the Study of Market Processes  
George Mason University  
Fairfax, Virginia  
22030

The corpus of Friedrich A. Hayek's scholarly output spans six decades and makes seminal contributions to several different disciplines. He has not only worked in a variety of fields, he has achieved distinct fame in each of them. These days probably most people hear of him in connection with his economic and political critiques of socialism dating back to the thirties and forties, which is making him one of the most popular social thinkers in Eastern Europe today.<sup>1</sup> Many economists know him as the chief architect in the twenties and thirties of the monetary theory of business cycles, for which he won a Nobel prize in economics.<sup>2</sup> Others in economics only know him for his classic papers on economics and knowledge from the thirties and forties.<sup>3</sup> Contemporary cognitive psychologists and computer scientists in the field of Artificial Intelligence cite him for a book that was published in the early fifties, which was one of the earliest statements of the "connectionist" or neural network approach to the workings of the mind.<sup>4</sup> Many philosophers know him primarily for his philosophy of science work in the forties, fifties and sixties, especially his often cited critique of "scientism."<sup>5</sup> Political scientists tend to know him only for his work from the sixties and seventies on legal philosophy.<sup>6</sup>

Students of culture in their turn may come to know Hayek only for his most recent book, *The Fatal Conceit*.<sup>7</sup> Although ostensibly the book simply restates one of his classic themes, the critique of socialism, in fact it goes way beyond a diagnosis of the errors of socialism, and explores the wider question of how culture evolves. It is only with this book that Hayek has made cultural evolution the central theme of his analysis, however in a sense this has really been his main topic all along. There is an unmistakable unity across the diversity of Hayek's scholarship, a unity that readers of this journal are especially apt to

notice. From his early work in technical economics to his most recent book, he has been developing a theory of social dynamics. One of the basic themes of *Cultural Dynamics* is to cover some intellectual turf that our divided “Two Cultures” have left largely unexplored: the study of the “mechanisms” of cultural change. Scholars from the social sciences do study mechanisms of change, but they tend to build distinctly non-human models of causal mechanisms, which seem, well, too mechanistic to adequately capture the human condition. Social science has been distracted from this question by what has been the prevailing methodological dichotomy between explanation and understanding, and between the “objective” and the “subjective.” Causal explanation has been treated as objective and unconnected to human purposes, while the interpretation of meaning has been presumed to be subjective and unconnected to any explanatory ambitions. Those from the humanities tend, on the other side, to examine human meanings of a culture that is already in place. They concentrate on the interpretation of meanings, but seem to present them merely as expressions of peoples’ psychological states, revealing only the contents “within” human minds, not what happens “without,” in external reality. Meanings they are not themselves typically being treated as causal forces. The question of understanding humanly meaningful causation gets neglected by both cultures.

Today of course, there are numerous strands in philosophy that are explicitly trying to overcome the split between explanation and understanding. But how, exactly, can causal explanation and human interpretation be woven together in actual social science research? What is needed, and what is being explored in this journal, is a humanities-oriented way of talking about “causal mechanisms.”

I believe that the whole body of Hayek’s work has a great deal to contribute to this problematic. His theory of “spontaneous order” is a non-mechanistic theory of social dynamics, an evolutionary theory that takes human meaning seriously, seeing it not merely as a matter of expressions, but as constitutive of social reality. He offers a useful way of talking about the systematic elements of the causal processes by which meanings and social institutions evolve. His approach to social causation involves a fundamental challenge to prevailing notions of the nature of reason, tradition, and society.

My purpose in designing the issue has not been to simply familiarize readers of *Cultural Dynamics* with the existing work of someone I expect they will find congenial, but to try to make advances in Hayekian thinking about cultural change. The essays have been designed to aim not so much for breadth as for depth. No attempt has been made here to cover the astonishing range of Hayek’s scholarship, but attempts are being made to penetrate to the heart of

Hayek's overall approach, the nature of his theory of spontaneous order. Although the essays refer primarily to his work in political economy, they are really not about economics or political philosophy, but concern the fundamental nature of social theory. What do we mean by social causation; by what standards can we judge the success or failure of social systems; how should we understand the processes by which our reason and our cultural traditions evolved? At this deeper level, the analysis has implications for all of the human sciences.

### *Background: Equilibrium, Equilibration, and Order*

The central point of Hayek's work has been to show that our social existence is the product of order-generating forces operating on the social level that are beyond the capacity of anyone individually to fully comprehend. There is what might be called a kind of "social intelligence" operating in market processes that is based on a complex interplay among the "individual intelligences" of the participants, but which exceeds that of any one of them. The competitive tugs and pulls of diverse market participants imparts vital information into prices which in turn help other individuals to adjust their plans to one another's actions.<sup>8</sup>

The market serves Hayek as a good example of order-generating processes which are also exhibited by many other complex systems. Language, law, and culture are spontaneous orders. Each of these systems involves a creative evolutionary process that generates social intelligence. Attempts by individually intelligent persons or agencies to deliberately control such spontaneously ordered systems can seriously interfere with their knowledge-generating capacity. Much of Hayek's later work outside of economics involved elaborating on an analogy between the systematic order of market institutions and other spontaneous order processes, such as in the evolution of legal and moral rules. Problems within economics concerning equilibrium are what drove Hayek to a deeper examination of the nature of knowledge, of the workings of the mind, and of the methods proper to the human sciences. Ultimately Hayek is led to a reconsideration of the whole nature of society.

Hayek's initial concerns about the equilibrium approach to social change stem from criticisms of mainstream economics that had been developed by the distinctive school of economics his own work comes out of, the "Austrian" school.<sup>9</sup> Mainstream economics produces an end-state-oriented causal analysis. It makes causal change a secondary issue, putting primary focus on formal descriptions of the equilibrium state towards which the causal forces are supposed to be "tending." Changes are analyzed by starting with a system in

full equilibrium; the system undergoes an exogenous shock that disturbs the equilibrium; and then by endogenous tendencies the system finds its way back to a new equilibrium.

The Austrian school distinguishes itself from mainstream economics in two fundamental respects: it focuses on the economy as an ongoing process of change, as contrasted with the mainstream's preoccupation with static states, and it considers the economy to be a matter of cultural meaning, rather than mere quantitative regularities. The school was struggling to keep causal explanation and the interpretation of meaning together. It viewed economic processes as fundamentally phenomena of "subjective" meaning, yet it aspired to providing "objective" causal explanations for economic processes.<sup>10</sup> Thus in the Austrian school's work on economic issues can already be found an attempt, however incomplete so far, to achieve the kind of integration of culture and dynamics that this journal is trying to advance.<sup>11</sup>

Austrian economists reverse the priorities of mainstream economics, putting the causal processes at the center of the analysis, and relegating the equilibrium end-state of such processes to, at most, a peripheral role. Equilibrium is a state of full coordination of plans, a situation never attained, and it could be argued, never even approximated, in the real world. Real social systems neither start in this mythical state, nor return to it after the exogenous shocks, so that what is of interest to economics and the other social sciences is how order-generating processes work within disequilibrium conditions. The "Paretian" welfare standard it uses concentrates on one dimension, proximity to a state of complete coordination of all plans, neglecting other possible dimensions.<sup>12</sup> Society can be judged not only by its degree of coordination, but also, for example, by its capacity to encourage the kind of creative elements of human choice which the Austrian school stresses. It is here where the whole theory of entrepreneurship has been developed as a corrective to the static viewpoint of mainstream economics.

Today a debate rages within the Austrian school over whether its traditional description of causal processes is still too equilibrium-bound. Some Austrian works describe the order-generating process as "equilibrating," though never reaching equilibrium. Others contend that the very changes entrepreneurs introduce are also disequilibrating, are themselves disturbing factors.<sup>13</sup> The controversy is considered of vital importance, since it addresses the fundamental question of whether there is a systematic order-generating mechanism in social evolution, and if so, how that systematic process can be described.

*Contributions to Hayek's Theory of Cultural Evolution*

Hayek's work supplies ammunition to both sides in the Austrian school's debate about equilibrium. His approach to analyzing evolutionary causation has itself evolved, starting from a focus on "tendencies" toward a general equilibrium, and gradually changing into a focus on open-ended processes of evolution that are unconnected to this notion of general equilibrium. The papers in this collection differ in their interpretations of Hayek's argument and its relationship to notions of equilibrium, but they agree on the profound significance of his contribution to social theory. Anyone interested in the way culture evolves needs to come to terms with Hayek's approach to the question.

Mario J. Rizzo's paper in this issue, "Hayek's Four Tendencies Toward Equilibrium," serves an important clarificatory purpose for the other papers by distinguishing among different types of causal theories that have been deployed throughout Hayek's writings. The first three of these theories arise from Hayek's contributions to economics and are fundamentally connected, albeit in different ways, to equilibrium theory. The fourth emerges most clearly in Hayek's more recent work on the evolution of law, moral rules, and culture, and appears to break radically with equilibrium economics. Rizzo shows how different these four causal theories are, and raises important conceptual difficulties posed by each of them. Although Rizzo finds the fourth approach the most promising, serious problems remain in that approach as well. All the difficulties arise from the fact that the Austrian school takes time and radical change very seriously, and cannot be satisfied with a theory that reduces social dynamics to a deterministic causal mechanism.

Rizzo's paper operates on the meta-economic level by discussing methodological issues that arise in Hayek's theories of social causation. The rest of the papers carry on several of the methodological themes Rizzo introduces, but they turn more directly to the level of Hayek's substantive social theory. The paper by Israel M. Kirzner, "Knowledge Problems and Their Solutions: Some Relevant Distinctions" raises a pointed challenge to those – such as Hayek himself – who would like to carry over Hayek's theory of the market process to the analysis of cultural evolution. Kirzner provides a clear description of the Hayekian argument about the way the market communicates knowledge, and then turns this argument back on Hayek. He begins by elaborating further on the difference between the first two of Rizzo's four Hayekian theories of social causation. What Rizzo had labeled the "strong analytical" theory solves one kind of knowledge problem, the problem of "over-optimism," while what Rizzo labeled the "weak analytical" theory solves another kind of knowledge problem, "over-pessimism." Over-optimism arises from thinking one can do

something one cannot, in which case the failure is in some sense self-correcting. The very carrying out of the plan reveals its flaws, and stimulates an adjustment. But over-pessimism is a fundamentally different kind of knowledge problem. It involves failing to notice or consider a possible opportunity nobody else has noticed either. Here we have no automatic self-correction built in, so that people may go on indefinitely failing to notice the opportunity.

Kirzner then argues that the market process exhibits a solution to both of the knowledge problems, but that other spontaneously ordered institutions, such as language, law, and culture, only solve one, the problem of over-optimism. The confidence, which Kirzner feels we are justified in having, that market processes overcome the over-pessimism problem, cannot, he argues, be carried over to other kinds of spontaneous order processes. In a sense, Kirzner is saying that the market process is “equilibrating” while other spontaneous order processes are not.

The contribution by Ronald A. Heiner, “Hayekian Competition: From Coordination to Creation” suggests that Kirzner’s depiction of the market process as equilibrating may itself be questionable, and thus implies that perhaps the analogy between markets and other social orders holds afterall. Heiner picks up on some themes from Rizzo’s paper to clarify an aspect of Hayek’s theory of market competition. He argues that what is important in the causal process of competition is not so much an ability to coordinate existing plans, but rather the ability to encourage creativity. Heiner contends that Hayek has had good reasons to move away from equilibrium-bound causal thinking and toward a more open-ended evolutionary approach.

Abandoning proximity to general equilibrium as a welfare standard raises the question that Hayek’s work has often provoked, the charge of conservatism. If our social institutions embody more knowledge than any of us could individually attain, does this imply that we merely individual minds are helpless to criticize the socially intelligent institutions upon which we depend? Without a definite standard for comparison, we would be unable to undertake social critique, and forced to accept that whatever evolves is good. Heiner’s paper suggests that rejecting the Paretian approach to welfare does not require us to reject all standards for judging the systematic causal workings of social processes. We can try to articulate a welfare standard in terms of a social system’s capacity to permit an open-ended evolutionary process to flourish. We can assess the system’s creativity-enhancing aspects, and not only its coordination-enhancing ones. He suggests that in this regard Hayek’s approach is in the spirit of recent work on the economy as a complex evolving system.<sup>14</sup>

The paper by Peter J. Boettke entitled “The Theory of Spontaneous Order and Cultural Evolution in the Social Theory of F.A. Hayek,” elaborates on the

issue of the welfare standard implicit in Hayek's approach. Boettke places Hayek's work in the context of classical liberalism, and argues that as such it constitutes anything but a conservative position. Classical liberalism had originally involved a radical critique of the mercantile ideology and institutional practices prevailing in its day, and as reformulated in Hayek's approach constitutes a profound challenge to the ideology and institutions of our time.

It is true that Hayek's argument is based partly on the limits of our knowledge of complex processes, but Boettke contends that the implication of this position is not that we are helpless to do anything to improve our present condition. On the contrary, the recognition of the limitations of our knowledge points in the direction of institutional arrangements that take better account of such limits than the institutions now in place. Hayek is not only arguing that there are some kinds of things, involving the particular details of spontaneous order processes, which we cannot know, he is also indicating what it is we *can* come to understand about such processes. We can understand the general principles of their operation, and thus we can recommend institutional improvements that would enhance their workings.<sup>15</sup>

There may be good reasons, however, why Hayek's position, especially as articulated in *The Fatal Conceit*, gets misinterpreted as a crude conservatism. Although as Boettke shows there is a continuity in Hayek's work stretching not only to his earlier writings, but to those of the whole classical liberal tradition, *The Fatal Conceit* does make its point in a more radical fashion than earlier works, and is bound to provoke many readers. Hayek's work has all along been undertaking a challenge to the dominant view of reason of our time, which he calls Cartesian rationalism. But with this most recent statement of his challenge, his own rather radical view of the nature of reason is clarified considerably. Cartesian rationalists could have missed the point before, but cannot help but see the challenge to their own thinking now. It may be that Hayek is misunderstood to be conservative precisely because he in fact has gotten more radical in his critique of Cartesian rationalism.<sup>16</sup>

Cartesian rationalism takes the isolated human mind confronting the natural universe as the basis for knowledge, and involves a failure to appreciate the fundamentally social and cultural basis of the mind. Knowledge is thought to be strictly a product of an individual mind's reason, and unconnected to processes of the accretion of wisdom in social institutions. It leads, thereby, to an artificial separation of reason from tradition, and ultimately to a dangerous conceit about the ability of the individual mind to control social processes. Hayek's approach, by contrast, argues that reason and tradition are fundamentally intertwined, that tradition itself embodies knowledge that is accumulated through a systematic process of cultural evolution.

Gary Madison's contribution, "Between Theory and Practice: Hayek on the Logic of Cultural Dynamics" takes up the issue of the practical implications of Hayek's theory of spontaneous order. He brings out the critical aspects of Hayek's approach, showing that it is not a critique of reason, but a way of overcoming the Cartesian rationalists' view of reason. It constitutes a critique of the rationalist's view of reason, and thereby undermines the whole mentality of social engineering that has been dominant in social theory throughout this century, on both the left and the right.

To say that social processes cannot be engineered or controlled, Madison argues, is not to say that they cannot be cultivated. Only some institutional arrangements are conducive to the effective workings of market, legal, or cultural evolutionary processes. Hayekian social theory has definite practical implications. It points to a way of overcoming the dichotomy between social theory and practice, and of developing "greater democracy in all areas of human endeavor."

Each of the essays sees Hayek's work in relation to different lines of social theoretic research. Rizzo and Kirzner see his work in terms of the way it arose from historical difficulties within economics on the issue of equilibrium. Boettke sees it in relation to the whole tradition of classical liberalism tracing back to the Scottish Enlightenment. Heiner sees it as pointing in the direction of contemporary research into "chaos" theory and the evolution of complex systems. Madison sees it as supportive of the central themes of hermeneutical philosophy. Many of these interpretations may be ultimately incompatible with one another, but they should prove thought provoking, in any case, to anyone interested in the larger questions of social theory, whether or not he or she has ever heard of F.A. Hayek.

## NOTES

<sup>1</sup> On his economic critique of central planning see Hayek (1935a; 1935b; 1935c; 1940). My own effort to summarize the meaning of this debate with socialism is in Lavoie (1985a). On his political critique see Hayek (1944).

<sup>2</sup> See Hayek (1931; 1939). For English translations of his earlier German essays from the 1920s see Hayek (1933; 1984).

<sup>3</sup> See Hayek (1937; 1945).

<sup>4</sup> Hayek's book, *The Sensory Order* (1952a), was already written in rough form in 1920, but was only published three decades later. It was decades later still before the spontaneous order approach he took to the workings of the mind became the prevailing one in the field of artificial intelligence. The classic paper in neural networks by F. Rosenblatt (1958) cites Hayek as one of the theoretical precursors to his work. For a survey of topics in computer

science which reflect what could be called Hayekian themes, see Lavoie, Baetjer, and Tulloh (1990).

<sup>5</sup> See Hayek (1942; 1952b; 1955; 1964).

<sup>6</sup> See Hayek (1960; 1973; 1976; 1979a).

<sup>7</sup> Hayek (1988). See also his earlier statement of the same themes in Hayek (1979b).

<sup>8</sup> See especially Hayek's work on competition (1946; 1978b). My own attempt to summarize Hayek's work along these lines was in Lavoie (1985b).

<sup>9</sup> The main figures in this school besides Hayek include the founder, Carl Menger, as well as Eugen Böhm-Bawerk, Friedrich Wieser, Ludwig von Mises, Israel Kirzner, and Ludwig Lachmann.

<sup>10</sup> More descriptive names the "Austrian" school has sometimes chosen for its approach include "subjectivism," to underscore the fact that it is fundamentally oriented to the subjective meanings of purposeful human agents, and "market process economics," to underscore the focus on dynamic change.

<sup>11</sup> In the opening editorial of *Cultural Dynamics*, four distinct but overlapping foci are delineated. One could find several elements in each of these foci that correspond to issues of central concern to Hayek. The work in biology on evolutionary theory mentioned under the first and third foci has been a central influence on Hayek's thinking throughout his career. Under the second focus, the "genetic" approaches from cognitive science and Artificial Intelligence resonate with Hayekian themes, while the section on "praxeology" explicitly refers to Hayek's mentor, Ludwig Mises. The subtle questions about the nature of time that are considered in the fourth focus reflect a longstanding concern of the Austrian school, and can be found throughout Hayek's writings. There is no doubt that Hayek's work constitutes a significant part of the trend in contemporary social theory that this journal was born to further.

<sup>12</sup> For attempts to develop a non-Paretian approach to welfare economics, see Boettke, Horwitz and Prychitko (1986) and Cowen (1990).

<sup>13</sup> For an example of this fascinating debate within the Austrian school, see Kirzner (1985) and Lachmann (1985).

<sup>14</sup> This line of research has been advanced by the Santa Fe Institute, for example in Anderson, Arrow and Pines (1987).

<sup>15</sup> For Hayek's arguments about the approach he calls the explanation of the principle, see Hayek (1955; 1964; 1978).

<sup>16</sup> See Prychitko (1990), who draws out some of the similarities between Hayek and the hermeneutical philosopher Hans-Georg Gadamer. Gadamer has also, and for apparently the same reasons, been accused of conservatism. See Warnke (1987) for a lucid account of the hermeneutical view of reason.

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