

General Introduction

The present collection of writings in the Austrian tradition aims at continuing the work initiated by Kirzner (ed., 1994) in his *Classics in Austrian Economics: a Sampling in the History of a Tradition*. However, the continuity is editorial and chronological in nature, rather than analytical. The texts presented by Kirzner cover, roughly, the period 1870-1970 and document the emergence of the core themes of original Austrian thought. The texts selected for the present volumes deal with the post-70 period and their main theme is the contemporary Revival of the Austrian tradition. What is at stake is not any longer the unearthing and corroboration of the specificity of Austrian thought -- if little else, the debate on planning can take the credit for having made it clear that Austrians and Neoclassical do not speak the same language -- but the promotion and construction of novel lines of enquiry. The foundations of the Austrian claim to originality are now exceedingly familiar. Ever since the 40s they have been reiterated, over and over again: a pronounced subjectivism that regards the economic agent as an important driver of economic dynamics rather than as simply reacting to external stimuli, a specific interest in the analysis of economic processes and doubts about the notion of equilibrium as a point of reference and corner stone of economic theorising, the role and nature of institutional phenomena that have emerged spontaneously, without recourse to planning or construction by human reason. The 70s signal the arrival of a new project, a new paradigmatic challenge: the main concern now is to build a body of theories on the basis of the hard won claim to originality, and to gain institutional recognition as a comprehensive and separate school of thought that is both coherent and unified.

The texts selected are organised in three volumes. The first of these, *The Founders*, is dedicated to the originators of the Austrian Revival, Israel Kirzner, Murray Rothbard and Ludwig Lachmann. Between them, these authors seem to get down to the task of paradigm-building by adopting a theoretical as well as intellectual division of labour: Kirzner provides the perhaps clearest and also the most conciliatory image of Modern Austrian thought. He does so through the theory of entrepreneurship that is, at once, explicitly complementary to mainstream theory -- at least, at first sight -- and built on a careful combination of aspects of von Mises's writings on human action with those by Hayek on knowledge. Rothbard places himself firmly in the tradition of von Mises. Taking it upon himself to represent the

political and polemical wing of the hard-liners in the Austrian camp, he provides the ideologically motivated liberitarian perspective that rearranges the ensemble of Austrian authors in a more or less explicit fashion. Lachmann is similarly often perceived as an extremist, but his is an extremism of an altogether different -- purely analytical -- kind. He begins his theoretical deliberations by pushing the subjectivism inherited from Menger to then develop a theory of indeterminate market processes.

Tensions between these three agendas aimed at taking forward Austrian originality surface all too soon. They become apparent, in particular, in the second volume of this series, *The Age of Dispersal*. A fairly conciliatory tone prevails between Kirznerians and Lachmannians; between Kirznerians and Rothbardians the debate takes on a more polemical note. The bones of contention are numerous, and this casts some doubt on the feasibility of the project announced with such aplomb at the beginning of the 70s. As it turns out, the various points of contention only serve to highlight the serious theoretical limitations against which all three of the suggested lines along which to develop the Austrian programme come up. Thus, the debates on radical subjectivism, on the role of uncertainty and on the process of market convergence all achieve but one thing, namely to underline the ambiguities inherent in the notions of equilibrium and efficiency adopted by the authors. Moreover, the lack of methodological unity -- praxeology versus understanding, or praxeology versus hermeneutics, or hermeneutics versus critical realism -- leads one to doubt the existence of a shared ontological position.

How then could these tensions, and the limitations they highlight, be overcome? Generally speaking, Austrian concerns meet with considerable sympathy from heterodox quarters (Post Keynesians, New Institutionalists, Constitutional Economists, and so on). This suggests that one should be looking for new alliances, that what is required is to look for complementary research agendas and to ride the wave of heterodoxy rather than to stick to a paradigm that appears to be rather ossified. The third volume of this series, *Toward a Broader Paradigm*, contains key contributions concerned with the opening up of new lines of enquiry. The preferred theme of these ventures into new terrain is Evolutionism written large: could Austrian economics gain from an alliance with Old Institutionalism, with New Institutional Economics? Or should it ally itself to an interdisciplinary agenda based on a number of different approaches to cognitive science? This attempt to take forward contemporary Austrianism requires a number of substantial adaptations, implying

both a reconsideration of some of the basic features of the original agenda -- such as, for example, methodological individualism as well as the ideological stance in favour of a free market agenda, in case Old Institutionalism was to be seriously considered as an important ally -- and a stronger emphasis on other features, as the case may be (institutions, learning, knowledge, the notion of order, etc.). All this confronts Austrians, once again, with the spectre of the problem of identity that has haunted them from Menger to the beginning of the 40s: is it possible to subsume the Austrian tradition under an Evolutionary agenda? Put differently, if the Austrian agenda is broadened to take account of other schools of thought, would there not be a distinct danger that the necessary changes and adaptations will amount to an inexorable loss of Austrian originality in exchange for adherence to an ultimately banal heterodoxy?

Thirty years on from the first signs of a Revival of Austrian thought, it is time to take stock. The red thread running through the volumes presented here, could well be the following question: is there such a thing as a contemporary Austrian School of Thought? There is little doubt that this school of thought would, by its very nature, not be monolithic in character. This said, and notwithstanding the methodological and analytical particularities of Austrian thought, the question remains of what constitutes the 'hard core', the coherent set of propositions at the heart of an Austrian research agenda -- little does it matter whether we label it a research programme or a paradigm -- with the potential to provide a viable and significant alternative to Neoclassical hegemony? The texts gathered in the present volumes should provide an answer to these questions.

The Revival in question

The Revival of Austrian thought at the beginning of the 70s resulted from a conjuncture of favourable developments.¹ Essentially, the two main reasons for which Austrians had found themselves on a long march into the desert -- that is, their double defeat in the debate on planning by the market Socialists, and in the controversy on capital theory by the Keynesians -- were gradually called into question. By the end of

the 60s, the wind blew a different way: stagflation undermined the macroeconomic hegemony of Keynesianism, and with it the dominant belief in the constructivist powers of state-led intervention into the macroeconomy. It is the time of a Revival, amongst economists, of free-market thinking. At the same time, a number of contributions cast doubt on the mathematical solution provided by market Socialists in response to von Mises's challenge in the 20s regarding the theoretical and practical feasibility of a centralised economic system.² The most influential among these is, without doubt, the future nobel prize winner James Buchanan's *Cost and Choice* (1969). Focusing on the subjectivist elements of von Mises's and Hayek's arguments on the impossibility of planning, Buchanan manages to present the Austrians as the winners in the debate on planning.

From an institutional point of view, the award of the Nobel Prize to Hayek was rather important. Even if this award was in recognition of his work on business cycles, his address on this occasion -- 'The Pretence of Knowledge' -- stressed the core themes of contemporary Austrian thought, that is, the dispersed and tacit nature of knowledge as well as his pioneering notion of competition as a discovery and diffusion process. Bit by bit, Hayekian thought recovers from the disrepute inherited from the theoretical defeats of the 30s and from the publication of his writings on political philosophy -- *The Road to Serfdom* (1944) and *The Constitution of Liberty* (1960) -- that hastened his disengagement from scholarly debate and his relegation to the status of an apologist of the market.³

From a more strictly theoretical point of view, the end of the 60s witnesses a number of influential contributions to the history of economic thought that highlight Menger's originality as well as the relevance of the subjectivist approach to economic analysis. Thus, the seminal contributions by Jaffé (1976) and Streissler (1972) question the conventional view of Menger as a leading member of the marginalist tradition; another influential scholar, Sir John Hicks, expresses his interest in the heterodox aspects of Menger's approach and contributes to a collection of articles, published in 1973 under the title *Carl Menger and the Austrian School of Economics*. The promotion of the subjectivist message emanates mainly from the Anglo Saxon

¹ For a more detailed account of the factors that contributed to the Revival of Austrian thought in the 70s see Vaughn (1990) and (1994, chap. 5 and 6).

² See, in particular Michael Polanyi (1951 and after); see also Armentano (1969) and Sirkin (1968).

³ See Streissler's edition of essays in honour of Hayek (Streissler, ed., 1969).

world, most notably with Shackle's *Epistemics and Economics* (1972) and the *Essays on Cost*, edited by Buchanan and Thirlby in 1973.

Given this favourable intellectual climate, all that is required is concerted action to encourage a conscious effort to organise the foundations of the latent Austrian Revival. Thus, three head figures -- Rothbard, Kirzner and Lachmann -- emerge as leaders of contemporary Austrian economics. Their interventions dominate a series of three conferences on the works of von Mises and Hayek, organised, between 1974 and 1976, by the *Institute of Humane Studies*.⁴ These conferences provided Austrians with the opportunity to leave behind the ideological gist that had become the hallmark of their writings in the USA in the 50s and 60s, and to establish themselves as a theoretical school. The first substantial analytical contributions of contemporary Austrian thought result directly from these conferences: in 1976, Dolan publishes *The Foundations of Modern Austrian Economics* based on the contributions to the first 1974 conference in South Royalton. *New Directions in Austrian Economics*, published in 1978 by Spadaro, contains the proceedings of the third conference held at Windsor Castle. The main objective of the writings contained in these two volumes is to identify 'the distinctive Austrian contribution to economic theory', and to draw together existing hypotheses to a coherent body of theories that can serve as a point of departure for the formulation of directions of future research. Before the advent of these conferences, theoretical contributions inspired by Austrian thought had been far between and isolated.⁵ The main merit of the conferences was to give rise to the emergence of a genuine scientific community that organised itself directly around the work of Rothbard, Kirzner and Lachmann, all of whom set the tone of the debate in their own fashion. The three research agendas, identified above, that were to emerge in the two subsequent decades, can already be discerned in the contributions to the volumes edited by Dolan and Spadaro.

Rothbard assumes the role of unbending defender of von Mises's legacy. For him, the Austrian Revival is paramount to that of von Mises's framework. The guiding concept, central to all future approaches and development, is that of praxeology. In his 1962 *Man, Economy and State*, Rothbard outlines the research

⁴ The first conference took place in 1974 in South Royalton, Vermont; the second in 1975 at the University of Hartford, and the third in 1976 at Windsor Castle, England. Rothbard (1992) and Vaughn (1990) agree at least on one point: Both mention the 1974 South Royalton conference as marking the beginning of the Austrian Revival. Of course, their views on what actually happened at the conference are markedly different...

agenda to which he stuck rigidly throughout his career: the Revival and propagation of von Mises's approach whose main objective had been to reorganise economic theory as a science of praxeology, that is, as a discipline built exclusively on the axiom of human action, according to which all human action is purposeful. The irrefutability of this axiom, true *a priori*, applies to all logical statements that can be deduced from it (on the basis of a number of second order axioms without any recourse to empirical propositions). Among these logical inferences, Rothbardians insist, in particular, on the desirability of unhampered markets. From this point of departure, economic theory understood as a praxeological science, naturally assumes the role of a kind of scientific buttress for a libertarian philosophy that regards individual liberty as the highest social value. From a theoretical point of view, one area of investigation highlighted by followers of von Mises and rather neglected by other contributors to the Austrian Revival, is international monetary theory. Here, the main source of inspiration is von Mises's *Theory of Money and Credit*, published in 1912. Rothbard (1975, 1994) takes issue with the floating exchange rate mechanism and defends the gold standard.⁶

Kirzner's work is influenced by both von Mises and Hayek. His theory of entrepreneurship takes its inspiration from the figure of the entrepreneur in von Mises and builds on the knowledge problem in Hayek. This twofold influence is manifest in the concept of alertness. The degree of alertness reflects the economic agent's capacity to take advantage of the diffuse and tacit nature of knowledge. It is the individuals' alertness that allows them to gain new knowledge about their economic environment. The most alert among economic agents can benefit from this new knowledge by exploiting profit opportunities -- through arbitrage -- that have been overlooked by others. This exploitation of new knowledge also implies its gradual diffusion among all economic agents, thereby decreasing the uncertainty within which economic interactions take place. In this sense, the actions of these alert agents, the entrepreneurs, are beneficial to the economic system as a whole. Kirzner's entrepreneur is the true driving motor of the market process; he is its equilibrating force. From its earliest expression through to these more recent versions, the theory of entrepreneurship has remained the most widely known feature of Austrian thought. The main explanation is to be found in Kirzner's ability to maintain a fragile balance

⁵ These include Kirzner (1963, 1973), Lachmann (1956, 1969), Rothbard (1956, 1957).

between the heterodox and the orthodox elements of his theory. His analysis provides a subtle synthesis of typically Austrian concerns -- subjectivism, the role of knowledge, the importance of processes, uncertainty -- while simultaneously suggesting their complementarity with the Neoclassical theory of competition: Neoclassical economists provide an analysis of equilibrium, Austrian economists analyse the processes that lead to this equilibrium.⁷

Lachmann suggests that the Austrian Revival should focus on developing the subjectivist paradigm. The theoretician's objective should be to explain and elucidate social phenomena in terms of their inherent importance, that is, in terms of what they represent for those who partake in them. The Austrian Revival should facilitate the move towards a new stage in the development of subjectivism, following the progress made by Menger at the end of the nineteenth-century -- the subjectivist Viennese revolution rather than the marginalist revolution -- and by von Mises and Hayek from the 40s onwards (extending subjectivism to individual means-end reasoning). According to Lachmann, who is strongly influenced by Shackle, this new stage consists of extending subjectivism to include the notion of expectations. This extension of subjectivism to expectations could be interpreted as rejecting the notion of a stable relationship between any given economic situation and a particular type of expectations. Depending on the individual, any one economic situation can be linked to different expectations. This structural divergence of individual expectations raises doubts about the possibility of convergence between individual plans and leads Lachmann to suggest a substantially different theory of market processes, one that regards market processes as a process of continuous interaction between equilibrium and disequilibrium forces with uncertain outcomes.

Despite their shared intellectual heritage, these three research programmes are, thus, characterised by palpable differences that are not easily reconcilable. The swift emergence of a threat to the Austrian Revival from internal tensions does not, therefore, come as a surprise. These frictions are all the more important in that they concern key concepts of all three currents involved. Thus, the praxeological approach advocated by Rothbard is being criticised by the new generation of authors that takes its inspiration from Hayek and Lachmann, rejecting the apriorism and dogmatism of

⁶ See Salerno (1984) for a restatement of the Austrian view in the light of modern monetary theory.

⁷ Kirzner's views in this regard have remained virtually unchanged over the years; compare, e.g. Kirzner (1973, p. 1) and Kirzner (1992, p. IX).

Rothbard's approach. At the same time, Kirzner's theory of entrepreneurship makes too many concessions to the logic of the notion of equilibrium, as far as Lachmannians are concerned, and fails to draw out fully the characteristics of the entrepreneur in von Mises, according to Rothbardians. Finally, Rothbardians and Kirznerians find a common cause in raising the issue of theoretical nihilism inherent in the radical subjectivism advocated by Lachmannians, even if they do so from differing theoretical perspectives.

Mises's Legacy under Fire

From 1974 onwards, there have been numerous attempts to define the Austrian Revival in terms of a paradigm or research programme organised around a set of basic unifying ideas. The main gist of these attempts has been, in particular, to gather methodological propositions under the Austrian banner. In his introduction to the collected papers presented to the South Royalton conference, Dolan (1976) provides a Kuhnian interpretation and defines Austrian economics as an 'extraordinary science' that competes with 'normal' science, represented by the dominant Neoclassical-Keynesian paradigm: the Austrian economist regards human action as the basic unit of analysis. The central objective is to render the world intelligible in terms of human actions and to use the praxeological method to analyse the unintended consequences of human interaction. Rothbard's position (Rothbard, 1976) is even more explicit: praxeology is *the* method of the Austrian Revival. However, the overall line of reasoning that emerges is somewhat more subtle, since it draws together authors who, while deeply attached to the subjectivist outlook inherent in von Mises's concept of human action, do not subscribe to the *apriorism* associated with this approach. Thus, White (1977, p. 4) regards the 'methodological outlook of its members: subjectivism' as the unifying element of the Austrian school, together with a specific concept of the economic agent perceived as a dynamic actor rather than a passive -- maximising -- agent who simply reacts to a set of external stimuli. In a similar vein, but taking his inspiration from Lakatos instead, Rizzo (1982) defines the hard core of the Austrian research programme in terms of the postulate of human action along von Mises's line. More specifically, he, too, advances a core proposition that draws together Austrian subjectivism and four corollaries of von Mises's postulate: actions are a function of

context-specific decision-making; actions are based on agents' perceptions in situations of uncertainty; these perceptions can be incorrect; all action aims at coordination.

In reality, the Austrian credo, according to which economic science is a praxeological science, is far from constituting a unifying feature of the Austrian Revival. It is, on the contrary, the main focus of increasingly vigorous criticisms emanating from the very hub of the movement. And how could it be otherwise? True, the conferences of the *Institute of Humane Studies* were organised at the instigation of Rothbard and his disciples. But Hayekian thought was well represented, in particular through the contributions by Kirzner and Lachmann. It is thus not surprising to see the methodological conflict re-impose itself that had positioned Hayek against von Mises in the 30s. In fact, Hayek's attack (Hayek, 1937) on the 'pure logic of choice' was directed not only at the theory of general equilibrium but at any theory void of empirical contents, including von Mises's apriorism. Hayek did not clarify his views on von Mises's praxeology until much later (Kresne and Wenar, eds, 1994, p. 72), but the subjectivist--empiricist outlook of his writings leaves little room for doubt: Hayek does not reject the apriorism of the principle of human action. Quite the contrary, he makes this rationality principle a cornerstone of his approach. However, his loyalty to von Mises crumples when it comes to extending apriorism to the interaction between individuals and to granting the analysis of market processes praxeological status. For Hayek, it is at this point that the analysis takes an empirical turn. He maintains that, contrary to the pure theory of choice, the foundations of economic and social science are empirical in nature, and that this follows directly from the tacit and dispersed nature of knowledge. From this point onwards, the most basic challenge faced by the theoretician is that of solving the 'knowledge problem' by investigating the process of the acquisition, diffusion and co-ordination of knowledge that is dispersed among agents.

Kirzner's and Lachmann's theories represent, precisely, a synthesis of the trains of thought pursued by von Mises and Hayek. It is in this sense, that they have little choice but to limit apriorism to the acceptance of the principle of human action.

In the 70s, Kirzner's position on praxeology underwent a change compared to the position expounded in his first publication in 1960 of *The Economic Point of View*, a work that leaves no doubt about his adhesion to an *apriorist* approach. In this early work, the main objective of this student of von Mises was to restore the axiom

of human action to a prominent place in economic theory and to provide an argument for the conceptualisation of economic science as a branch of praxeology. He did so by means of an analysis of the concept of rationality. If subsequently Kirzner preserved this particular conception of subjectivism based on the principle of purposeful human action, he nevertheless progressively abandoned the notion of an *apriorist* economic science. Kirzner's theory of entrepreneurship takes its inspiration directly from von Mises's entrepreneur: Kirzner (1973, chap. 2) extracts the entrepreneurial function from all human action -- the quality of alertness -- in order to instil the imaginary figure of the entrepreneur with it. He then proceeds to analyse this imaginary figure, following in the footsteps of Misesian reasoning, as the driving force behind the market process. Kirzner (1976a, p. 43) defines economic science as a pure science of choice, simply because it is built on the recognition of the principle, true by virtue of introspection, of the purposefulness of human action, and not because it was a praxeological science that excludes all reference to empirical propositions. The theory of entrepreneurship is, on the contrary, based on the empirical proposition, taken from Hayek, that individuals derive new knowledge in a systematic manner from their experience with the market, that is, it is based on the empirical proposition that the market process tends towards equilibrium.

Lachmann's position is similar in as far as he subscribes to von Mises's legacy without therefore advocating a definition of economic science as a praxeological science. However, the logic underlying his line of reasoning is quite different from Kirzner's. Hayek's influence is manifest here, too, in the general proposition that 'the market process is the outward manifestation of an unending stream of knowledge' (Lachmann 1976, p. 127). Contrary to Kirzner, however, Lachmann rejects Hayek's empirical notion of a systematic individual learning process. Instead, he insists on the indeterminate nature of the process of knowledge acquisition, thus casting doubt on the very tendency towards equilibrium of market processes. This rejection directly derives from Lachmann's advocacy of von Mises's principle of human action and, more precisely, from one of its immediate implications: the fact that human action is synonymous to change, to the replacement of one situation with another, introduces real time and uncertainty into the analysis. Thus, contrary to Kirzner who insists on alertness as the main feature of human action, Lachmann stresses its speculative aspect. Lachmann's objective is to provide an in-depth analysis of this characteristic of human action, and this leads him to question the predictive powers of economic

science. This is, without doubt, also the reason why von Mises, despite clearly being very aware of the importance of time following directly from the axiom of human action, drew back from exploring the implications of the speculative nature of individual choice through a coherent analysis of the role of expectations for his analytical system. ‘Time is the denial of the omnipotence of reason’ (Shackle, 1972, p. 27). The Kantian rationalism underlying von Mises’s praxeological approach cannot tolerate any attempt at re-assessing the theoretician’s objective and ambition: for Lachmann, the point is no longer to discover the praxeological laws that guide the ensemble of phenomena emanating from human interaction, but ‘to make the world around us intelligible in terms of human action and the pursuit of plans’ (Lachmann, 1973, p. 204).

Following in the wake of Kirzner and Lachmann, the critiques of praxeology raise the stakes. The new generation of Austrians is less and less prepared to accommodate the dogmatism of Rothbardians.⁸ These authors take up long-standing and well-established criticisms of praxeology, such as those by Schuller (1950, 1951) and Caldwell (1984, 1986). Its most salient points may be briefly summarised as follows: first, von Mises’s praxeology ignores competing praxeological approaches and fails to provide an answer to the problem of how to choose between two competing axiomatic systems. Second, if it is true that the positivist critique of praxeology is clearly dogmatic, the assertion of the apodictically true nature of praxeological propositions is by no means less dogmatic: *apriorists* accuse the detractors of being guilty of taking recourse to a questionable moral basis for their criticism. Furthermore, a single example of non-purposeful behaviour is sufficient to undermine the whole edifice of praxeology, and Caldwell advances operant behaviour (Nozick, 1977) as a candidate. Finally, it is possible to cast doubts on the rigour of the chain of deductive reasoning and to ask questions about the true status of some of the praxeological propositions (Gutiérrez, 1997).⁹

But the new generation goes even further. Prychitko (1994, p. 82), for example, does not hesitate to state that ‘[by] abandoning praxeology’s epistemological

⁸ See in particular Boettke, Horwitz and Prychitko (1986), Prychitko (1994), Lavoie (1991) and Vaughn (1994).

⁹ To the best of my knowledge, this is one of the most rigorous and systematic criticisms of von Mises’s praxeology. Gutiérrez provides a meticulous re-examination of a number of propositions generally regarded as praxeological, showing that they do not follow logically from the single axiom of human action. While some are contradictory, others are actually empirical in nature, and a large number of these propositions turn out, in fact, to be little more than re-statements of the original axiom.

pretences, by which [Prychitko] means the rhetorical claims of “ultimate foundations” and “apodictic certainty” and all that they imply, and adopting a pragmatic, as opposed to apodictic, justification of the science of human action, Austrian school economists might gain a more sympathetic hearing [...]. It would, nevertheless be an improvement.’ The actual motivation for this rejection is the wish to adopt an alternative methodology -- hermeneutics -- that is difficult to reconcile with von Mises’s praxeology. At the heart of the debate is the strict dichotomy, introduced by von Mises and revived by Rothbard and his disciples, between economic theory, on the one hand, and history, on the other. From a hermeneutic perspective, the objective of economic science is to give a meaning to observed economic phenomena in terms of individual intentionality. In this sense, hermeneutics could be interpreted as a resurgence of the Weberian tradition of *Verstehen* (understanding). The influence of rationalism and the spectre of historicism led von Mises to regard theory as guided by pure logic, and historical science as based on *Verstehen*. Following Lachmann (1991), this dichotomy is an expression of a formalist approach that overestimates the power of abstraction and stands in the way of enriching our understanding of observed economic phenomena. Contrary to the praxeological approach, the challenge of hermeneutics consists ‘[...] in opening its theory to being informed by history, and in its ability to use theory to interpret history. The challenge is to show that Austrian economics is empirical theory.’¹⁰

A Contentious Middle Ground: Kirzner’s Entrepreneurship under Scrutiny

Even if all Austrians agree on attributing to the entrepreneur a dynamic role in the unfolding of the market process, their respective analyses of knowledge, and of the individual’s ability to acquire and deal with knowledge, are at the root of profound differences that have beset the very core of the Revival.

Rothbardians are critical of the Kirzner--Hayek conceptualisation of the market as a process of knowledge discovery and diffusion, and of the central importance these authors attribute to the process of individual learning. The vision endorsed by Kirznerians and Hayekians sees individuals as starting out from a position of

¹⁰ Boettke, Horwitz and Prychitko (1986).

ignorance. Due to the signals sent by the price mechanism, this situation undergoes a gradual change until a point is reached at which individuals have gathered sufficient knowledge to allow the harmonious co-ordination of all individual plans. Rothbardians find at least three faults with this vision: first, the concept of co-ordination of plans is meaningless; second, the tendency towards equilibrium, set in motion by the entrepreneurs, is not a praxeological law but an empirical proposition; and finally, in this framework the entrepreneur only plays a passive role.

According to Rothbard, ‘the entire concept of “coordination of plans” should be tossed out as unhelpful, and false’ (1992, p. 135). The main objective of Rothbard’s critique is, in fact, to draw attention to the importance of Mises’s evenly rotating economy [ERE], a concept that is, in turn, at the receiving end of forceful criticisms by Hayekians.¹¹ Within a Misesian framework, the tendency towards a final equilibrium of the market process takes the form of an imaginary ERE. Since economic fundamentals change continuously, this is never reached in practice. However, it is quite legitimate to employ the ERE ‘as a foil’: the method of ‘imaginary construct’ proceeds precisely by taking a situation in which there is no human action at all as the starting for the conceptualisation of the category of entrepreneurship. In contrast, for Hayekians, the concept of the coordination of plans does not constitute a thought experiment but an empirical benchmark that has meaning only in so far as the economy actually converges on it. The question of convergence of the market process is, thus, the purely empirical one of the pace of adjustment of entrepreneurial plans relative to that of economic fundamentals. Thus, the equilibrium tendency ceases to be a praxeological law that is true *a priori*. Finally, within this framework, entrepreneurs are not endowed with all of the characteristics of the Misesian entrepreneur and, in particular, not with the function of risk-taker. In this respect, the criticism of Rothbardians is essentially the same as that advanced by radical subjectivists (see below): Kirzner’s entrepreneur does not inherit the speculative aspect of the Misesian entrepreneur. Put differently, the quality of alertness amounts to no more than the mere ability to arbitrate. ‘The Hayek--Kirzner entrepreneur, indeed, is strangely passive’ (Rothbard, 1992, p. 128). He *waits* for new

¹¹ Cowen and Fink (1985) have provided the most widely known of these criticisms. They show that there is no explanation for the convergence path towards equilibrium: All that the theory implies is that if equilibrium forces are frozen (income effects, non-convexities, strategic behaviour, etc.), the equilibrating forces will prevail. Furthermore, Cowen and Fink demonstrate that the institution of monetary prices cannot logically exist in the Mises-Rothbard framework.

knowledge to emerge from the market process and then reacts to it, and is thus clearly different from the picture von Mises draws of the entrepreneur as a truly active individual, a risk-taker and speculator who actively *constructs* knowledge specific to the market in which he deals.¹²

Lachmann, and the radical subjectivists more generally, base their critique of Kirznerian theory on two considerations: first, they reject the proposition of a tendency to equilibrium, thus breaking, once and for all, with all reference to the notion of equilibrium. Second, they emphasise the Misesian themes of uncertainty and speculation that have, without doubt, been minimised in Kirzner's approach.

Beginning with his 1973 publication, Kirzner specifies the aspects of Misesian thought on which he wishes to expand, as well as those he admits to neglecting. It is precisely this procedure that provides the starting point for the radical subjectivists' criticism: they accuse Kirzner of excluding the notion of uncertainty from his analysis. Consequently, his theory is built on an unfounded hypothesis, namely that of a tendency towards equilibrium. Kirzner (1973, p. 86) concedes that he deliberately avoids any emphasis on the speculative aspect of entrepreneurship, since his approach focuses on the world of ignorance, not uncertainty. More precisely, Kirzner's concept of ignorance stresses the conciliatory feature of entrepreneurship -- or its function of arbitration -- rather than its speculative dimension. It is, in fact, possible to distinguish between two types of ignorance, rational ignorance, on the one hand, and radical ignorance, on the other. The first notion refers to the agents' deliberate choice not to benefit from a piece of information to which he has access, such as, for example, the decision not to read *The Wealth of Nations* by Adam Smith, being aware both of the book's value as well as of the time and effort required to read it.¹³ Radical ignorance, on the other hand, deprives the agent of any knowledge of the existence of a particular piece of information. To stick to the above example, in this case the individual is ignorant of the costs and benefits associated with his reading Smith's work. The entrepreneurial activity of discovering profit opportunities can be described in terms of his awareness of the costs and benefits associated with a particular piece of information, and it is in this sense that the entrepreneur is portrayed as an arbitrator

¹² For a more detailed criticism of Rothbard's critique of the entrepreneur in Kirzner, see Rothbard (1985, 1991).

¹³ Ikeda (1994).

(Kirzner, 1973, p. 85). The concept of radical ignorance definitely eliminates any speculative aspect of entrepreneurship, as defined by von Mises, from the analysis. For the radical subjectivists, this conceptualisation of economic reality is inadmissible to the extent that it presupposes a deterministic view of the process of knowledge acquisition. Returning to the above example, the radical subjectivists would object that arbitrage is impossible to the extent that the agent cannot be aware, *a priori*, of the knowledge he or she would obtain by reading the book. You simply cannot get away from the speculative nature of entrepreneurship: the agent decides to read or not to read the book on the basis of what he or she *imagines or expects* to gain from reading it, and not on the basis of a given cost-benefit choice. The world of rational ignorance, that transforms the agent-entrepreneur into a mere discoverer of existing opportunities, rests on the assumption of an underlying objective reality waiting to be revealed. There is a unique -- deterministic -- correspondence between the equilibrium configuration on which, according to Kirzner, the market process converges and the underlying data. Kirzner (1992, chap. 1) acknowledges that his analysis is based on the existence of objective knowledge waiting to be discovered by the most alert agents. Obviously, this proposition eliminates for good any notion of uncertainty. Reality is perceived as an underlying set of objective knowledge. The future rests on this data that individuals are encouraged to reveal and to diffuse as and when the market process allows.

Paradoxically, it thus emerges that Kirznerian theory is not truly dynamic in the pure Misesian meaning of the term. If we go back to the subjective conceptualisation of time, as developed by von Mises, who, in turn, refers to Bergson, the passage of time is synonymous with change. Kirzner's world evolves with the passage of time, but it evolves from a situation of -- rational -- ignorance towards a situation of perfect information, that is, without any change in the underlying fundamentals or data that define the point or configuration of departure.

The radical subjectivists are opposed to this deterministic outlook. They insist on the impossibility of founding the analysis on an objective future reality that is presumed to exist *a priori*. The Kirznerian belief in a tendency of the market towards equilibrium rests precisely on the correspondence between the expectations of alert entrepreneurs, on the one hand, and objective future facts, on the other. A Lachmann-type view of the world, on the contrary, takes its inspiration from Shackle's notion of

a kaleidic world. The underlying data is constantly modified by the actions of individuals, and the future is not only indeterminate but has no *a priori* existence at all, casting doubt on the relevance of any notion of a correspondence between expectations and future reality. The dynamics of the market process follow directly from the incessant changes in the fundamentals that underlie any economic configuration. In contrast, Kirzner's theory of entrepreneurship is based on the constancy of an underlying reality, and Kirzner (Boehm, 1992, p. 101) ultimately recognises the validity of criticisms in this regard (even if only in terms of their philosophical contents).¹⁴

A Call to Arms against Radical Subjectivism

Basically, the originality of Lachmann's approach lies in his suggestion to extend the subjectivist paradigm to include expectations. This new stage of subjectivism to which Lachmann subscribes is presented as a logical extension of Austrian thought. The point is to underscore one of the implications of the axiom of human action -- the fact that all action contains an element of speculation (Mises, 1949, p. 106) -- and to take literally Hayek's famous statement (Hayek, 1952, p. 31) that, for the past hundred years, such progress as there has been in economics has resulted from a coherent application of subjectivism. If this starting point would appear altogether justifiable to Austrians in their entirety, as to Lachmann, the conclusions arrived at are decidedly more controversial: the notion of competition as an equilibrating process becomes theoretically untenable. This dismissal of a fundamental cornerstone of the free market defence has provoked harsh attacks from Austrians belonging to the other two currents who denounce the theoretical nihilism to which Lachmann's radical subjectivism inevitably leads.

For Rothbard (1992, p. 125), '[...] the entire Lachmannian paradigm is nonsense.' From a praxeological point of view, Lachmannians have stretched subjectivism beyond the point of acceptability: their extension of subjectivism goes as far as to cast doubt on the very existence of an objective reality and, in particular, on

¹⁴ For a summary of the evolution of the theory of entrepreneurship seen from the perspective of its

the existence of objective laws of cause and effect in the social domain. At the heart of the debate is the meaning attributed to the notion of uncertainty. Rothbardians do not, of course, question the theoretical validity of this notion but, for them, it refers to a more subtle form of uncertainty to the extent that agents can take recourse -- with certainty -- to the knowledge of praxeological laws. This knowledge does not allow them to determine the future with any degree of precision, but it provides Misesian agents with a crucial basis from which to make predictions when they take decisions. As to Lachmannian agents, they do not have any such knowledge at their disposal and cannot, therefore, take rational decisions. Consequently, radical subjectivists cease to engage in theory-building in the sense of deducting abstract propositions that are true *a priori*, turning to history instead, as witnessed by their recourse to stylised facts and their plea for lowering the level of abstraction. Thus, radical subjectivists are presented as the new empiricist menace threatening the praxeological project (Selgin, 1988). After Menger and von Mises have, respectively, fought the German Historical School and positivism, Lachmann's kaleidic vision is now the new enemy to face. While the historicist approach cast doubt on the possibility of establishing exact and universal laws, the introduction of ideal types into economic analysis, as suggested by Lachmann, once gain puts the usefulness and relevance of the purely conceptual laws of praxeology at risk. For the hardcore of Misesians, Lachmann's attempt to incorporate an alternative Shackelian perspective into the Austrian framework, is paramount to chaos and the rejection of all theorising in terms of praxeology, that is, in purely conceptual terms. The hermeneutic turn proposed by radical subjectivists is precisely based on the rejection of the dichotomy theory--history, and is perceived as an additional provocation. Hermeneutics is the methodological answer of a group of 'Austrian renegates' to the excessive formalism of Neoclassical theory, and it 'embraces the desperate creed that the enemy of my enemy is necessarily my friend' (Rothbard, 1989, p. 57).

Criticisms deriving from Kirzner's approach adopt a more conciliatory tone, emphasising commonalities rather than differences between the two approaches. Other than with Rothbardians, the confrontation is analytical in nature, rather than methodological. However, it is once again not the question of the formation of

expectations that it at the heart of the debate but their implications, that is, the question of the existence of a tendency to equilibrium of the market process.

The rift between Kirzner and Lachmann is evident as early as their first exchanges at the conference of South Royalton. While both authors clearly subscribe to a genetic-causal perspective along Mayer's line and, within this perspective, agree that the concept of market processes has to be at the centre of the Austrian Revival, they differ when it comes to the notion of equilibrium: Kirzner's concept of entrepreneurship provides a dynamic argument to justify the tendency towards the Neoclassical notion of long-run equilibrium. Taking account of divergent expectations, Lachmann breaks, once and for all, with this view of the market process. He replaces it with a non-deterministic conceptualisation that excludes all reference to the notion of equilibrium but is vulnerable to the criticism of theoretical nihilism. According to Kirzner (1995, p. 18), the Austrian tradition should represent a kind of compromise with regard to its treatment of the economic agent, that is, it should take an intermediate position between the Neoclassical stance, on the one hand, that treats the agent as a mere reactor, and the radical subjectivist stance, on the other, that treats it as a pure speculator. Following Kirzner, the theory of entrepreneur is surely an ideal candidate since it is based on a rationality postulate situated half way between the two extremes of total omniscience and total uncertainty. From this point of view, Kirzner's theory of entrepreneurship avoids the reefs of both Charybde and Scylla, that is, pure determinism as well as pure indeterminism. In this context, Kirzner takes recourse to Garrison's notion of the middle ground (Garrison, 1982) that is presented less in terms of an attempt at reconciliation but as a criticism of radical subjectivism. Garrison's original presentation was not limited to subjectivism but rather aims at recovering the middle ground for more specifically Hayekian contributions. More precisely, in defining the Austrian definition as a 'middle ground', Garrison refers to two aspects, in particular: first, the notion of equilibrium -- understood to refer to the existence of equilibrating tendencies-- is situated half way between, on the one hand, the mechanical outlook of Neoclassical theory that links any given configuration of data to an equilibrium position, and, on the other hand, Shackle's kaleidic perspective in which the fundamentals turn out to be totally volatile. Second, the Austrian view of institutions -- defined, essentially, around the Hayekian notion of spontaneous order -- is situated half way between the a-historical and a-social Neoclassical perspective and the chaotic outlook associated with Shackle's kaleidic world.

The only real effort at reconciliation arises from O'Driscoll's and Rizzo's (1985) attempt to define Austrian economics as an economics of time and ignorance. They suggest, in particular, to counter the criticism of theoretical nihilism by introducing a specific notion of equilibrium to the kaleidic view advocated by Lachmannians, namely the concept of pattern coordination. This aims at demonstrating that the alternative is not one situated between pure determinism, on the one hand, and chaos, on the other. The concept of pattern coordination is based on the Hayekian distinction between typical and event-specific characteristics. Individual plans conform to an equilibrium pattern, if coordination is based on their typical characteristics, even if their specific characteristics cannot be coordinated. This notion of economic order is based on the co-ordinating role of social institutions that reduce the uncertainty faced by agents without totally eliminating it. Institutions convey generalised and stable patterns of behaviour -- the typical characteristics of the system -- to which agents can take recourse when forming expectations. Therefore, they limit the divergence of interpretations; in a world of ignorance, they provide agents with landmarks to hold on to.

The Economics of Time and Ignorance remains, however, far from achieving a sense of unity in the Austrian ranks: for Kirzner, the approach is too indeterminate, for Lachmann it is too deterministic, and for Rothbard it constitutes a case of analytical heresy.¹⁵ Notwithstanding this muted reception, the work can claim to have set the agenda for the future direction of the Austrian Revival: the analysis of the role played by institutions takes centre stage in an Austrian tradition that regards market processes as an indeterminate phenomenon, albeit one that is not chaotic; O'Driscoll's and Rizzo's notion of dynamic uncertainty claims to be compatible with and complementary to a Post Keynesian perspective;¹⁶ the Evolutionary tendency shows through in numerous references to the work by Nelson and Winter, and so on.

Over and above the implications of O'Driscoll's and Rizzo's contribution, it seems that a more open attitude towards other schools of thought is the only viable way forward for an Austrian Revival bogged down by internal contradictions and limitations. What possible future -- outside from politics, that is -- is there for the

¹⁵ See the reviews by Kirzner and Lachmann, published concurrently in *Market Process* (1985) and reprinted in Boettke (1994b). For the Rothbardian view see the devastating review by Baird (1987).

Rothbardian agenda that contents itself with divulging praxeological principles and refuses to tolerate even the slightest departure from the word of von Mises? What future is there for the Kirznerian agenda that is unable to rid the theory of entrepreneurship from its inherent optimistic bias and that fails to provide a satisfactory proof of the tendency to equilibrium of the market process? Finally, what future is there for the Lachmannian agenda that, while rejecting the charge of nihilism, remains limited to suggesting an ideal-typical approach without also developing a theory of the market process compatible with this approach? Opening up Austrianism seems, a priori, all the more reasonable given that Austrian themes have attracted interest and sympathy from numerous heterodox authors.¹⁷ Apart from superficial demonstrations of sympathy, at the present stage the Austrian Revival is directed at investigating the possibility of organising the different complementarities that have been identified into a coherent whole without, therefore, forgoing an independent Austrian identity.

Toward a Broader Paradigm

Rothbardians have remained at the margins of this new development in Austrian thought, since the concepts of institutions and of societal evolution are hardly compatible with the Misesian emphasis on rationalism. In this respect, the criticism directed at the Hayekian theory of cultural evolution is evocative. It focuses essentially on the Hayekian idea of the efficiency of institutions that have been selected throughout history. That an institution is the outcome of an Evolutionary process must not hide the fact that all human action is, by definition, based on reason and is, by no means, conditioned by habit or custom. 'Hayek's entire work, on the contrary, is devoted to a denigration of human reason' (Rothbard, 1992, p. 142). The core concepts of the theory of cultural evolution -- 'spontaneous order', 'unintended consequences of human action', 'product of human action but not of human design' -- are subject to vigorous objections. The notion of spontaneity makes choice appear an act of unawareness. According to Misesians, individuals take recourse to institutions

¹⁶ However, here too, the reception has been muted. Compare, for example, Davidson's devastating review of their book (Davidson 1989) with Rymes (1987) more sympathetic comment.

¹⁷ See volume 2 of this collection, *The Age of Dispersal: Fellow Travellers*.

to ensure a satisfactory outcome of their economic decisions, but not because they are conditioned, that is, because they would understand that their past choices have turned out to have been efficient. This would turn the economic agent into a mere reactor. Rather, the individuals' choice is based on their own free will and is conscious, it is the outcome of a means--end calculus. Human action is always, by definition, intentional. Moreover, if agents are informed about the positive consequences of their actions, they will be able to take even more enlightened decisions. Thus, if an entrepreneur -- by reading von Mises...-- knows that by pursuing his personal gain he benefits society as a whole, he will be even more motivated to do so! The Hayekian critique of constructivism appears, in this respect, to collide head on with Misesian rationalism that is unable to grasp the reasons for its emphasis on the unintended consequences of human actions.

This *apriorist* position remains, however, isolated, and the majority of Modern Austrians agrees on the need to develop Austrian thought in the direction of Evolutionism, broadly speaking. In fact, this opening of Modern Austrianism to Evolutionary theory only takes up the direction suggested by Menger in his *Untersuchungen* and emphasised by Hayek (1934, p. 406). As Menger suggests, 'the most important problems of the theoretical sciences and of theoretical economics in particular are thus closely connected with the question of theoretically understanding the origin and change of "organically" created social structures' (Menger [1883], 1963, p. 147), that is, of 'these institutions which serve the common welfare and are extremely significant for its development [and] come into being without a common will directed toward establishing them' (ibid, p. 146).

From this perspective, Modern Austrian thought could develop in a number of directions, depending on the meaning given to the term Evolutionism. From among the vast number of contributions and currents in this area, it is possible to identify two main lines of argument: the first, suggesting a rapprochement with Old Institutionalism, consists in developing a theory of institutions that is consistent with Austrian reasoning and that would take centre stage in its modern version; the second, implying a rapprochement with the New Institutional paradigm in the sense suggested by Langlois, consists in developing the cognitive and Evolutionary aspects of Austrian reasoning, the goal being to try and organise these into a coherent whole. It should be pointed out that, to the extent that, from an Austrian point of view, the

central themes of both schools of thought are closely related, the distinction between Old and New Institutionalism serves an expositional rather than an analytical purpose.

Among the initiators of the Austrian Revival, it is, without doubt, Lachmann who has most clearly suggested an institutionalist orientation. Beginning in 1970, he has put forward an analysis of institutional phenomena that takes its inspiration from both Menger and Weber. This theory comes to full fruition in his 1986 contribution in which he points to ways of linking it up with his analysis of the market process. At the same time, this contribution also contains the beginnings of his response to the charge of theoretical nihilism. In fact, the only way to go beyond the indeterminism to which a radically subjectivist analysis of competition is bound to lead, involves two elements: a lowering of the level of abstraction and an ideal-typical approach to the workings of the markets. The objective is to allow the theoretician to specify the constellation of forces -- other than competitive -- that intervene in the dynamics of market interactions. An ideal type represents a particular abstraction from reality through which the theoretician chooses to emphasize this or that characteristic in order to provide an answer to a specific question. Therefore, an ideal-type of the market would have to take into account relevant institutional specificities, that is, those that have an impact on the way in which individual plans are formed. Lachmann suggests to begin any structural analysis of the market by specifying the identity, the functions, the objectives and the types of behaviour of groups or categories of agents participating in the market. Thus, this approach effectively consists in defining markets in relation to their institutional context.

Clearly, the novelty of this approach does not lie in the recognition of the importance of the institutional theme in an Austrian framework. Rather, it lies in the analytical role attributed to institutions. As a matter of fact, the question posed by Lachmann is totally different from that asked earlier on by Menger, Wieser or Hayek. The point is not to investigate the emergence of institutions, their organic or pragmatic nature, nor even to demonstrate the efficiency of spontaneous phenomena. Rather, what matters is to investigate the impact of institutions on the market process. Institutions cease to be the object of investigation, the outcome of invisible hand explanations -- whether genetic or functional -- to become themselves an explanatory factor of the process of market co-ordination. However, this novel outlook also poses new problems for an independent Austrian identity. It challenges two beliefs of the

Austrian paradigm (methodological individualism and the defence of the free market).¹⁸ After all, recourse to invisible hand explanations had the advantage of allowing one to deal with institutions without having to give up an individualist position to the extent that institutions could be presented as the unintended outcome of individual interaction.¹⁹ In contrast, if the question is posed the other way round, focusing on the impact of institutions on the process of individual plan formation, this methodological position must inevitably be reconsidered, implying, for example, a move towards methodological institutionalism along the lines of Agassi (1975). Moreover, if one follows this re-assessment to its logical conclusions, it would seem that, once institutions are conceptualised as a mechanism of co-ordination that is complementary to the forces of pure competition, the very efficiency of competition as a self-sufficient equilibrating force appears questionable. The question then is the following: does a theory that qualifies the individualist position and that leads to conclusions such as those just pointed out still deserve the label ‘Austrian’? The distinct lack of enthusiasm with which Modern Austrians have gone down this road strongly suggests a negative answer.²⁰

The second line of argument takes its inspiration from Hayek’s work on knowledge, cognitive aspects of learning and spontaneous orders. The conceptual proximity of this work with themes developed by other heterodox approaches that highlight the endogenous nature of economic change suggests the formation of a broader Evolutionary paradigm into which elements of Hayekian thought could be integrated quite harmoniously. Langlois (1986a, 1986b) defines the ‘New-Institutionalist’ paradigm precisely from this perspective. This term here comprises a larger set of theories than is normally associated with it, such as the theories of Coase, Williamson, Alchian and Demsetz, etc. In effect, Langlois uses the term to draw out the differences with Old Institutionalism whose strictly holist outlook does not fit well with the Evolutionary perspective developed by Langlois. Consequently, the label of

¹⁸ For a more detailed discussion of this point see Gloria-Palermo (1998).

¹⁹ Obviously, this argument requires some qualification if we also take account of Hayek’s later writings in which he introduces the holistic notion of group selection to explain the emergence of institutions. However, the prevalent response in the Austrian camp has precisely been to try and reformulate Hayek’s theory of cultural evolution without recourse to this form of selection (Witt. 1994).

²⁰ See the special number of *Research in the History of Economic Thought and Methodology*, vol. 6 (1989) for a summary view of the problems posed by a rapprochement with the Institutional approach.

New Institutionalism refers not only to transactions cost and property rights theory, but equally to Evolutionary theory in the limited sense adopted by Nelson and Winter, to Schumpeterian concepts of creative destruction and to Modern Austrian analysis (basically Kirzner and Hayek). Langlois (p. 2) suggests that these approaches all share a common line of reasoning, based on three basic elements: a non-mechanical notion of individual rationality; a rejection of equilibrium analysis in favour of the analysis of processes; and the recognition of institutions as well as their integration into economic analysis.²¹ More precisely, the research agenda has the following objectives: to develop invisible hand explanations of institutional phenomena that do not exclusively rely on mechanisms of optimal selection; to extend the analysis of institutions to include all socio-economic institutions -- the firm and the state-- rather than to limit it to organic structures; and to specify the role of institutions in the decision-making process of agent--actors. The overarching objective is to direct the analysis toward a methodological middle ground of the individual institutionalism variety.

This research agenda has subsequently been taken up very widely, and it is clear from recent developments that it is, without doubt, sympathetic to Austrian thought, and sometimes explicitly so. Thus, Witt (1994) makes it plain that Austrianism should take up Evolutionism in order to resolve the tension, situated at the heart of Hayek's theory of cultural evolution, between methodological individualism and his recourse to group selection. More generally, Witt's objective (Witt, 1986) is to provide a strictly individualist explanation of the emergence and diffusion of institutions.

Attempts to develop an Austrian theory of the firm similarly situate themselves within the 'New Institutional' perspective defined by Langlois. Based on a combination of Hayekian, Marshallian and Evolutionary elements of thought, the firm is analysed in terms of providing an answer to problems of co-ordination.²² The firm is the locus of particular competencies that are tacit and specialised in nature. It is an instance of internal institutions in Lachmann's sense of the term, or a specific characteristic of patterns of coordination in the terminology of O'Driscoll and Rizzo. Langlois (1992) prefers the term of 'lower-level institution'. From this point of view, the firm would have to be analysed as a system of implicit routines and rules whose

²¹ However, Coats (1986) and Mäki (1987) question the fact that this collection of theories sums to a unified paradigm.

²² See, for example, Witt (1994), Loasby (1992) and Foss (1993).

evolution could well be described in terms of Hayek's cultural evolution. The question is not to understand at which point the firm replaces the market, but rather to which extent it facilitates the coordination of the dispersed and tacit competencies of economic agents, just as does the market to which the firm is complementary

Its integration into the New Institutional paradigm has also allowed the Austrian approach to take on board new tools and techniques, such as evolutionary game theory, numerical simulation, genetic algorithms, complex systems theory, self-organisation, and so on. Until recently, the scepticism of Austrians towards mathematics could, to a certain extent, be justified. For a very long time, the only tools available to economists had been imported from a 'hard' science dominated by a functionalist approach that effectively excluded any analysis of economic phenomena other than in equilibrium terms. Simultaneous equation systems, differential equations, mathematical functions and derivatives are appropriate tools for the Neoclassical approach, but of little use for a causal-genetic approach that is interested in the emergence of certain phenomena. The division in question is of an ontological nature and recalls the debate between formalist and constructivist mathematicians in the 30s. The equilibrium logic requires formalist tools, while the causal-genetic approach requires constructivist tools. Today, what is on the agenda for Austrian authors is to try and imitate Evolutionists, that is, to import into the domain of economic analysis the tools that have been developed, above all, in the cognitive sciences. Their integration into the New Institutional paradigm may well provide the impetus to do precisely this. As far back as 1979, Littlechild made a similar suggestion, namely to reformulate Kirzner's theory of entrepreneurship using evolutionary game theory in order to see to which extent this tool could be adapted to Austrian reasoning. More recently, Lavoie, Baetjer and Tulloh (1990) have expressed their enthusiasm about combining Hayekian economic analysis with computer sciences, and Vaughn (1999) has pointed to the compatibilities between the theory of complexity and Hayek's analysis of spontaneous order. It should be noted, however, that, inevitably, only very few of these contributions have gone beyond a purely methodological investigation and a discussion of the feasibility of entering into an alternative agenda of formalising Austrian ideas.²³ Doubts regarding this promising new avenue of formalisation along Evolutionary lines also arise from an -- at present

²³ An exception is Langlois (1986c) who tries to adapt game theory to a context of radical uncertainty.

largely unjustified -- resistance to the introduction of mathematical tools. This risks leaving Modern Austrians with the image of a rather outdated community of authors. In fact, the few attempts at formalisation there are, such as for example that by Witt (1985) who investigates the formal similarities between processes of market co-ordination and models of self-organisation, only refer to Austrian reasoning as a general underlying theme rather than in terms of an explicit and rigorous framework.

More generally, and leaving to one side the question of formalisation, it seems that the integration of Austrian reasoning with an Evolutionary paradigm, broadly speaking, is not so much aimed at advancing Austrian thought *per se*. Rather, the principal objective seems to be to use some aspects of this tradition to build the new paradigm. Hence, Hayekian work on knowledge is being integrated into an analysis of the firm that takes its inspiration from Penrose and Richardson; Hayek's functionalist theory of cultural evolution has become a new area of investigation for game theory that sees itself more and more drawn to Evolutionary themes; Hayekian elements of thought are being absorbed by cognitive theories that retain a heuristic outlook, and so on. Evolutionary thinking appears to trivialise Austrian originality and to absorb Austrian thought into a broader set of issues that still have to be integrated to a coherent whole. As with any attempt to fuse different forms of reasoning into a single approach, the implication is that this new approach will be based on increasingly general theoretical principles. Different forms of reasoning will have to be absorbed, and made uniform, within a summary paradigm that remains relatively vague. True, the Evolutionary road will be difficult to avoid for an Austrian tradition beset by sterile internal tensions and endowed only with an Institutionalist alternative that has little credibility. But if it is taken, the label 'Austrianism' is likely to lose its meaning. It would be more appropriate to speak of a set of Austrian themes that, not unlike a conceptual toolbox, can be put to good use to enrich a more general Evolutionary approach.

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