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Revisiting the Concept of Schools of Thought in Economics: The Example of the Austrian School

By Ioana Negru*

Abstract. The aim of this article is to explore defining characteristics of schools of thought in economics, with Austrian economics chosen to illustrate some of the themes raised. This article argues that a school of thought can be interpreted as an entity that comprises both a system of thought and its member practitioners. Furthermore, a school of thought presupposes the existence of two elements: *coherence* and *distinctiveness*. Despite the existence of Misesian and Hayekian strands and thus of plurality within the Austrian school, the article argues for the existence of a broader notion of *coherence* within the Austrian school at the level of epistemology, methodology, and agenda/objectives.

Introduction[1]

The past two centuries have witnessed significant developments within the discipline of economics and have seen the emergence of a number of strands of thought. In defining the nature of academic disciplines, a conventional approach to demarcating subject boundaries is to group theoretical frameworks and approaches into categories, often referred to as *schools of thought*. These not only embody groups of scholars with a certain orientation but also imply that

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members of a school will espouse similar ontological, epistemological, methodological stances. Economics is usually portrayed as being organized around schools of thought or traditions such as neoclassical economics, institutionalism, Marxian economics, and Austrian economics, illustrating the existence of a plurality of theories, methodologies, and approaches. Schools of thought seem to be a widely accepted categorization in economics although the defining criteria seem to be more implicit rather than explicit. In short, such academic entities are presumed to have a certain degree of *coherence* at various levels of their system of thought. By coherence we mean both *homogeneity* and *the internal logic of a system of thought*. Furthermore, a school of thought implies that its approaches, theories, methods, and so on seek to depart from other traditions or entities, thus displaying a certain form of *distinctiveness*.

The organization of knowledge in specific traditions or groups of research can be found also in other social sciences such as sociology and philosophy. The attitudes towards the existence of schools of thought within mainstream economics and more generally within philosophy of science have been rather negative. Philosophers of science such as Michael Polanyi (1969: 55–56) build an argument against the specialization and tribalism in social sciences and describe scientific progress as being based on consensus of ideas and concepts. Implicit in Kuhn's work ([1962] 1996) is a tension between the conservatism of normal sciences and the drive to contest and innovate in extraordinary science. Kuhn (1996) also emphasizes that pre-paradigm divergences are not conducive to progress. The reaction of mainstream economists towards schools of economic thought and diversity of approaches has been equally negative, influenced by the debate of what is "good" versus "bad" (or inferior) economics (see, for example, Hahn 1984; Lee 2009; Negru 2009). Heterodox economists such as McCloskey (1994) and Garnett (2008) are concerned that schools of thought erect barriers against communication and dialogue and due to their specialization tendencies and paradigm construction they are not conducive to pluralism in economics. In a recent paper, Garnett (2012: 18) alters his position and argues that in a liberal environment "schools of thought play a vital role in the republic of science."

The most consistent defender of the positive role that schools of thought play in economics has been Dow (for instance, 1985, 1996, 2007, 2004a, 2012). Dow argues that schools of thought represent segmentations and paths of communicating knowledge that should be interpreted as open systems, with diffuse and porous boundaries that are continuously changing. This article also seeks to interpret schools of thought as a valuable category in economics that outline common points and likeness in their systems of thought, but also divergences. The schools of thought have also a pedagogical purpose in that they educate and inform about the existence of various concepts, ideas, categories, theories, and doctrines that attempt to explain and understand the nature and functioning of the economy. In this sense, they are a mechanism for the existence of plurality in economics and a point of evolution for new ideas. Finally, schools have a cognitive role as they embody a search for "truth" and a drive to capture through their refined lenses aspects of the "truth" about economy, society, and so on.

The aim of this article is to (a) explore the concept of a school of thought, examining the alternative definitions of the concept and the criteria that have been advanced as a means of recognizing a school (implicit and explicit); (b) examine in more detail the criteria of (1) distinctiveness and (2) coherence as legitimate criteria for defining schools; (c) use distinctiveness and coherence as a means of exploring the tensions in the concept of a school of thought based on the example of the Austrian school; and (d) finally draw some conclusions concerning the idea of a school of thought and how the debate might be taken on as to whether a segmentation into schools of thought is useful or not. The article uses the exemplar of the Austrian school to explore the extent to which it is possible for a school of thought to exhibit degrees of plurality whilst at the same time representing a coherent body of thought that is recognized by both adherents and opponents of the school. Although this article should not be interpreted as an attempt to "fix" the criteria of defining schools of thought, it does aim to illuminate the concept of *school of thought* and to make a useful contribution to economic analysis.

Criteria of Defining Schools of Thought

Economists cannot escape disagreements. The existence of "different traditions of thinking," or schools of thought, is an indication of the existence of competing perspectives in economics. Prior to our discussion of whether the Austrian school can be interpreted as a coherent and distinctive school of thought it is important to consider how schools of economic thought are customarily defined. According to one classification[2] economics can be divided into four schools: political economy; neoclassical economics; "alternative" further classified into Keynesian and heterodox schools (for example, German historical school, old institutionalism); and "thematic" (for instance, business cycle theory, game theory). Accordingly, Austrian economics should be defined as an alternative school. The first problem that emerges with this classification concerns the contrast between neoclassical economics and "alternative" schools. For instance, Keynesians are identified as quite separate from the heterodox tradition. But, this approach categorizes Keynesian economics within a broad group ("alternative schools") that encompasses equally distinct schools. The employment of the term "alternative" is also problematic as an approach to categorization. Individuals might define themselves as "labor," "industrial," or "political" economists. Others might say Austrian, Marxist, or post-Keynesian. Few, if any, would describe themselves as "alternative." A further problem emerges if one adopts a thematic groupings approach in which studies are classified on the basis of their focus. The fact that economic ideas can be organized on the basis of thematic schools (for example, studies of economic growth) ignores the possibility of defining as *coherent* a series of studies that embrace quite opposite or contrasting directions in their study of a common phenomenon.

The Collins Concise English Dictionary (1992: 1203) defines a school (of thought) as "a body of people or pupils adhering to a certain set of principles, doctrines or methods." Such doctrines usually stem from the works of a specific theorist (for example, Marx) whose ideas shape the focus or approach of subsequent writers. They are then defined (or self-defined) as belonging to a particular school of thought (for instance, Marxist) because their focus, view of reality, or method of

inquiry follows an approach that is associated with that thinker. This type of "prophet and his disciples" approach may originally emerge from the widespread tradition in philosophy of grouping thinkers on the basis of their adherence to a specific philosophical tradition (for example, Aristotelian or Socratic).[3] It is a perspective partially adopted within economics. For example, consider the close association between classical economics and the works of Adam Smith and Ricardo. Figureheads have thus been employed as a device to represent a demarcation in approaches within economics.

Defining a school of thought on the basis of an individual "figurehead" raises a number of problems. Firstly, the use of such a perspective presupposes an ability to identify an individual whose work is significantly different from that which has preceded it—and that can therefore be identified as constituting a fault line in the development or evolution of the discipline. One must consider the novelty at all the levels of the system of thought belonging to that thinker. Finally, schools of thought have different ideas and interpretations regarding the work of a "guru" and the initial ontological and epistemological assumptions might change and evolve making this criterion redundant.

A school of economic thought can be understood as a group of scientists whose work reflects different forms of commonalities. Of course, the commonality can consist in adherence to one intellectual orientation. Or, it might mean the study of a particular phenomenon, such as growth theory or inflation. Schools of thought exhibit commonalities and sometimes they do overlap although maintaining their distinctiveness. For instance, Van Staveren (2010) explores the relationships between post-Keynesian economics and feminist economics and shows how cross-fertilization and mutual engagement between these schools is possible. Similarly, O'Driscoll and Rizzo (1985) suggest commonalities between Austrian economics and post-Keynesian economics, whilst Lawson (1999) analyzes the connections and relationships between realism and post-Keynesianism.

A school of thought refers both to its *system of thought* (meaning object of study) and its *member practitioners*. A system of thought comprises ontology (the realm of the existent and reality), epistemology (the realm of the known and knowledge; what is knowable?),

methodology (the realm of tools, mechanisms, and methods of research and study), ethics and axiology (the realm and hierarchy of values), and ideology (a system of ideas, notions, theories, and political conceptions). This article attempts to argue that schools of thought presuppose the existence of two elements. A school must exhibit a degree of *coherence*, which implies a level of internal *homogeneity (of the system of thought)* and the logic of the internal system of thought (the internal logic of thought refers to argument and reasoning and is fundamented on basic logical principles including consistency and sufficient reason). Moreover, a school must be *distinctive* from other traditions of thought.

The term homogeneous is not unproblematic, being defined variously as "composed of similar or identical parts or elements," "of uniform nature," or "similar in kind and nature" (see *Collins Concise Dictionary* 1992). We must however recognize that there are degrees of homogeneity, and we must decide in considering schools of thought whether we wish to adopt (a) a strict definition of homogeneity, implying uniformity, or (b) a looser definition allowing schools to either possess broadly similar characteristics or an identical key characteristic. Adopting a strict definition of homogeneity would require a school of thought to be identical in terms of its theoretical focus, assumptions, ontological and epistemological presuppositions, methodology, policy prescriptions, and so on. In contrast, adopting a looser definition of homogeneity would allow us greater scope to accommodate alternative studies that exhibit similar, but not identical, characteristics.

There is something meaningful and distinctive about each school of thought that marks it from other approaches or perspectives. *Distinctiveness* represents the quality of being "particular" or "individual" and what separates one school or system of thought from another. Distinctiveness illustrates a state or condition of being dissimilar and a point in which schools of thought are not the same. This implies a certain degree of disagreement, dispute of ideas, potential dissension, and controversy. Distinctiveness can be discussed at various levels of a system of thought such as its epistemology, ontology, methodology, ideology, axiology, and ethics. A school of thought is an entity that has an identity and is thus homogeneous but also possesses other traits

that differentiate it from other entities. In other words, a school of thought is defined through *identity* and *similarity*, on the one hand, and on the other through *difference* and *opposition*.

It is often held that the most useful way in which a discipline can be understood is through the paradigms it employs. It is of course possible that various disciplines share the use of identical paradigms such as is the example of the rational choice paradigm in philosophy, economics, political sciences, and sociology. Boudon (1998: 235) considers that the use of the term "paradigm" in the scientific literature has been either implicit—for instance, how Merton has employed the syntagm of a functionalist paradigm in sociology—or explicit such as how Thomas Kuhn (1996) defines it in *The Structure of Scientific Revolutions*. Boudon (1998: 236) advances the term "paradigm" to denote theories or subgroups of theories developed by a discipline. To describe the discipline of sociology, Boudon proceeds further by classifying all the theories used within this field and reduces them to deterministic and interactionist paradigms of human action. In Kuhnian terminology, a paradigm is a possible direction of research embraced within a scientific community. It is a tradition of scientific research under which we can describe "traditional" rubrics such as "Ptolemaic astronomy," "Aristotelian astronomy," and "Newtonian physics." Kuhn starts by stating that paradigms have two defining characteristics (1996: 10): "Their achievement was sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity. Simultaneously, it was sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners to resolve."

In explaining the usual developmental pattern of mature science and the successive transition from one paradigm to another via scientific revolutions, Kuhn (1996) distinguishes between paradigms as *normal science* and paradigms as *extraordinary science*. Normal science is seen by Kuhn mainly as a conservative process oriented towards maintaining the *status quo* within a discipline rather than contesting the dominant paradigm. Initially, a paradigm might lack both scope and precision and although this is focused towards "puzzle-solving," no paradigm completely resolves all its problems. Science enters an "extraordinary" phase with the emergence of a new

paradigm that challenges and contests the existent, dominant paradigm. Kuhn's usage of the term "paradigm" has been inconsistent and Kuhn himself accepted this limitation in the "Postcript" to the second edition of *The Structure of Scientific Revolutions*. Kuhn uses the term "paradigm" in two different senses (1996: 174–210)—a broad and a narrow sense.[4] In the broad sense, a paradigm is "a disciplinary matrix": "For present purposes I suggest "disciplinary matrix": "disciplinary" because it refers to the common possession of the practitioners of a particular discipline; "matrix" because it is composed of ordered elements of various sorts, each requiring further specification" (Kuhn 1996: 182). This is to signify a combination of ideas, networks of ideas, theories, attitudes, and values that denote mental and affective involvement of the members working in a particular research tradition. The narrow sense of a "paradigm" is that of a component of the disciplinary matrix or "exemplar" that represents a unique, singular theory. "Paradigms" and "schools of thought" are terms that are often used interchangeably. But paradigms are theories, discoveries, and innovations and they represent the *object* of study of a school of thought where theories have an implicit worldview or *gestalt*. The schools of thought comprise *paradigms* although paradigms grant value, significance, and prestige to schools of thought. Thus, schools of thought can be seen as "producers" and "consumers" of paradigms. This has implications for types of pluralism in economics. Thus, not only do we have co-existent schools of thought, but we also have a diversity of paradigms within schools, which generate new theories.

On Coherence and Distinctiveness in Economics

What has been argued so far is that, although schools of thought are entities that are continuously changing, there are two enduring features they possess and these are *coherence* and *distinctiveness*. The most notable and consistent theorizer of the schools of thought in economics has been Dow (for instance, 1985, 1996, 2003, 2004a, 2012), but Lawson has focused also on what renders heterodox traditions distinct and coherent (2003, 2006). Whilst Lawson is interested in the concepts of coherence and distinctiveness within a broader framework of distinguishing mainstream and heterodox

traditions at the ontological level, Dow concentrates on what differentiates schools as modes of thought in economics and thus is advancing a more systematic analysis of the nature of schools of thought. One further point to emphasize is that Dow (1996) does not use the term "coherence" explicitly, but offers implicit arguments about what the elements held in common by post-Keynesians are (that is, a particular perspective on how capitalism functions as a system) and also why complete logical consistency is not possible at the level of theory (see also Backhouse 1988: 35–41).

Coherence (or the lack thereof) has been debated explicitly in the context of post-Keynesian economics. Recently, a number of contributors have been questioning whether post-Keynesian economics constitutes a coherent school of thought (Arestis 1996; Arestis, Dunn, and Sawyer 1999; Arestis 1999; Dunn 2000). Coherence has been interpreted as an attempt of post-Keynesian economics to become an alternative theory to mainstream economics (Walters and Young 1997). As a reaction to Eichner and Kregel (1975), who claim that post-Keynesianism is a coherent school of thought and a legitimate alternative to neoclassical theory, Walters and Young (1997) reconsider this idea and argue that a post-Keynesian economics alternative to the neoclassical economics has not yet been established as the school lacks coherence and a distinctive methodology. Hamouda and Harcourt (1988: 24–25), for instance, state: "What we have tried to show is that within the various strands that we have discerned and described, there *are* coherent frameworks and approaches to be found, though obviously there remain within each unfinished business and unresolved puzzles. The real difficulty arises when attempts are made to synthesize the strands in order to see whether a coherent whole emerges." Coherence here (as well as in Dow 1985, 1996) signifies *homogeneity* (commonality and/or similarity) and also logical consistency between the post-Keynesian strands of thought.

Hamouda and Harcourt (1988: 25) label various strands within post-Keynesian economics as being coherent and suggest that the search for coherence in any school of thought is a misplaced exercise: "The various strands in Post Keynesian economics differ from one another, not least because they are concerned with different issues and often different levels of abstraction of analysis." Walters and Young (1997)

are particularly concerned with forms and the nature of coherence and argue that post-Keynesian economics has not agreed on a certain conception of coherence and cannot be regarded as an alternative school of thought. For Walters and Young (1997) coherence is essential for a school of thought to be rendered distinct but in this way they use the method of defining one concept—that of coherence—through another—that of distinctiveness. Walters and Young (1997: 331–332) conceive coherence at two levels: at a *simple* level, coherence is to be restricted at a set of propositions and theory and at a *broader* level it implies the system of a school of thought or adherence to a particular set of principles or foundations. The authors do concede that coherence can also exist in terms of the objectives of the project and not necessarily viewed in terms of theories and theoretical approaches.

Post-Keynesian economics, according to Walters and Young (1997: 330), lacks an agreed set of foundations; they have no shared theoretical agenda and have incompatible methodological views. In addition, there is no coherence within individual strands of post-Keynesian thought. Walters and Young (1997: 347) conclude their evaluation of coherence of post-Keynesian economics:

> A comparison with other, established, schools of thought suggests that Post Keynesianism lacks an agreed set of foundations. The idea that it could cohere around a distinct methodological approach was also rejected by reason of the several incompatible methodological positions adopted. Similarly, competing agendas suggest that it is also difficult to define Post Keynesianism around an agreed agenda. Finally, the claim of coherence within individual strands was also questioned in view of the tension, and sometimes contradiction, between the analytical frameworks of, in particular, Keynes and Kalecki.

Walters and Young (1997) ultimately suggest that post-Keynesians need to theorize on the meaning and role of coherence and elaborate a notion of coherence that is compatible with the diversity of theoretical and methodological views within this tradition.

Lawson (2006) sees modern economics as divided into mainstream (orthodox) and heterodox economics. Lawson (2003: ch.7) appears to be concerned with the *coherence* of various heterodox projects and also with how we can delineate the various heterodox traditions (what is their *distinctiveness*). In elaborating on the nature and

coherence of post-Keynesian[5] economics, Lawson (2003) is attempting to argue that the enduring features of the project tie together and admits that one needs to do more than demonstrate that the broad characteristics or relevant features are not mutually inconsistent. Of course, whether the defining elements fit together and whether they are mutually consistent concern only the issue of coherence and not the uniqueness of a system of thought or its distinctiveness. Lawson (2006) argues that heterodox traditions are not coherent but the unity in diversity is given by their ontological commitments (see also Lawson 2003: ch.7).

In attempting to unpack the nature of heterodox economics, Lawson (2006) distinguishes heterodox traditions collectively from the mainstream but also discusses individual distinctions amongst them. According to Lawson (2006) the heterodox traditions oppose the mainstream project because of their "orientation to method" and their insistence on using only (or almost only) certain mathematical-deductive forms of reasoning. Furthermore, the heterodox tradition is distinguished from the mainstream one based on its ontological view of the world (Lawson 2006). In other words, the essential feature of mainstream economics is its continuing insistence upon forms of mathematical-deductive reasoning, while the distinguishing feature of heterodox economics stems from its ontological conception (see also Lawson 2009, ch. 6 in particular). Although simplified by Lawson, what distinguishes heterodox schools of thought is the *questions they ask*: "In other words, if ontology can account for the distinctions between the heterodox traditions and the modern mainstream, that is *if ontological commitments identify Post Keynesians, institutionalists, feminist economists and others as heterodox*, it is their particular *substantive orientations, concerns and emphases, not answers or principles*, that *distinguishes the heterodox traditions from each other*" (2006: 499). For instance, the Austrian economists might be identified based on "their emphasis on studying the market process and entrepreneurship in particular" or "the role of inter-subjective meaning in social life" (2006: 501). Here, the author disagrees with Lawson (2006) on what differentiates schools of thought as they refer not just to the questions they ask but also to their object of study, advanced solutions, and paradigms.

During the 1960s and 1970s the *distinctiveness* between economic schools of thought was framed in terms of their theoretical differences within a common methodological framework (Dow 2004a). This changed and it became clear that these differences stem from deeper methodological differences that underline various views of economic reality (Dow 2004a). Dow (2004a) suggests that schools of thought are distinguished substantially by their *methodologies*. And, although this is not always spelt out clearly, different methodologies are seen to reflect different understandings of the nature of reality that in the case of heterodox economics derive from a view that reality is an open system (see also Dow 2000). In a similar way to Lawson, a methodological distinction between orthodox and heterodox economics is made based on the opposition between closed-system and open-system approaches, although the meaning the two authors advance is different (Dow 2000: 158). Heterodox schools of thought employ forms of open-system approach, meaning "not all relevant variables and relationships are knowable" (Dow 2000: 158). In contrast, a closed-system approach would imply "that all relevant variables and relationships between variables are knowable and thus amenable to representation by a single formal mathematical system" (Dow 2000: 158). Heterodox paradigms share a common element in that they reject the mathematical formalism practiced by mainstream economics (Dow 2000). But whilst Lawson (2003, 2006, 2009) argues that all heterodox traditions share the *same* open, dynamic, processual, and structured social ontology, Dow (2004b) advocates that different schools within the heterodox project entail *different* open-system ontologies. This opens up a whole area of debate and although we consider discussing ontology as an important matter, this article is interested in schools of thought as a category in itself and as a vehicle of raising issues of ontology. This discussion along ontological grounds is not entirely clear and Lawson's reductionist approach of schools of thought polarizes the debate by opposing mainstream and heterodox economics at the level of ontology whilst this article is arguing that schools of thought constitute a mechanism for the existence of diversity and plurality in economics.

Schools of thought are thus characterized both by unity and diversity, or forms of coherence and plurality. In economics, no school of

thought (in particular heterodox schools of thought) is completely homogeneous/coherent, and the degrees of homogeneity and coherence vary between different schools. These features oscillate depending on how a school is organized and structured. If initially schools of thought have been identified by their theories they have become distinct due to their values and methods. Ontology is linking and separating the various economic perspectives and can be structured in terms of the heterodox-orthodox economics distinction and then further in terms of ontological perspectives within Austrian, Marxian, post-Keynesian economics, and so on.

In the following part of the article we will consider the example provided by the Austrian school to try to illustrate some of the challenges in defining schools. This has implications for coherence and distinctiveness as important considerations in exploring the nature of schools of thought and their interrelationships.

On Coherence and Distinctiveness Within the Austrian School

Identifying the distinctive nature of the Austrian school can be an elusive task given the wide range of economists and economic studies that claim to fall within its ambit. Despite the existence of various generations within the Austrian school, there are four important members that have marked the Austrian agenda: Carl Menger—the founding father, his two disciples Ludwig von Mises and Friederich von Hayek (whose ideas have influenced the two strands within the Austrian school), and Murray Rothbard—the follower of Ludwig von Mises. The breach in the prevailing economic paradigm of the day that gave rise to the emergence of the Austrian school is related to the appearance of the concept of "marginalism," and the further developments in economic methodology that stemmed from the ideas of Carl Menger (1841–1922). Despite his contributions to marginal analysis and to value theory based on the concept of utility that were essential for the foundation of neoclassical economics, Menger had a different methodological approach than the other economists who contributed to the marginal revolution. For instance, in contrast with Jevons and Walras, Menger rejected the use of mathematization on the grounds that economic theory is not studying "interdependencies" but

"essences" (of value, rent, profit) (see Menger's letter to Walras 1884, cited in Smith ([1986] 2011: 3). Menger, due to his entire contribution, is considered to be the founder of the Austrian school.

The enshrining principles of the Austrian school as subscribed to by its "founding fathers" are summarized in Table 1. The central elements of "uniformity" or coherence that emerge from the different "versions" of Austrianism are an initial focus on marginalism, adherence to methodological individualism and subjectivism, and a rejection of solely empirical/mathematical forms of economic analysis. However, as the discussion in this section illustrates, adherence to these principles was not universal and the philosophical rationale for the methodological position adopted by different theorists within the school varied considerably. Table 1 is based on Machlup's (1980) and Blaug's (1980) interpretation of the "Austrian condition." It is interesting to note that Machlup (1980) emphasized the plurality of views within the school and how this view evolved from Wieser's position to Machlup's modern interpretation and Mises's differing opinion. Table 1 also summarizes Blaug's (1980) view on the essential elements of new Austrianism.

According to Menger ([1883] 1985) the nature of economics is that of a theoretical science whose purpose is to understand the real world. Menger's (1985) vision of reality bears Aristotelian and Kantian influences (see Hodgson 2001; Dobretsberger 1949; Milford 1990).[6] The Aristotelian elements within the Mengerian ontology are very well summarized by Smith (1994). Amongst the concepts, elements, and ideas taken from Aristotle are that the world exists, independently of our thinking, and objective theorizing about the world is possible (Smith, 1994). As an Aristotelian, Menger builds his reasoning starting from the individual to the general and states that there are certain basic, simple, axiomatic, and fundamental elements that combine and associate together forming regularities that through abstractization embody laws of reality (1995: chs. 1–2). Thus, Menger thought that there are simple economic categories that are universal, that have not been created or imposed in any way, but they can be discovered through theoretical endeavor. For Menger, economists study qualitative "essences" or "natures" or "elements" as well as the relations between such categories such as value, rent, money, and profit. Smith

Table 1

The defining characteristics of the Austrian school (after Machlup, 1980; and Blaug, 1980)

Wieser's interpretation of Austrian economics:	Von Mises's description of Austrian economics according to Machlup (1980)	Machlup (1980) on the current Austrian condition	New Austrianism (e.g., Murray Rothbard, Israel Kirzner, and Ludwig Lachmann)
Marginalism; Diminishing marginal utility; Cost theory (cost is foregone utility—later referred to as opportunity cost); Imputation of value to complementary factors (according to Machlup, 1980)	Methodological individualism (Menger, Hayek); Methodological subjectivism (Menger, Hayek); Marginalism; Individual tastes and preferences; Opportunity costs (Wieser's law); Time structure of consumption and production (Böehm-Bawerk's time preference) plus: Consumer sovereignty; Political individualism According to Machlup (1980), Mises's two additional tenets were not accepted by the majority of Austrians, particularly in the case of Menger and Wieser	Methodological individualism (Menger, Hayek) Methodological subjectivism (Menger, Hayek); Marginalism; Individual tastes and preferences Opportunity costs (Wieser's law); Time structure of consumption and production (Böehm-Bawerk's time preference) According to Machlup, these six central tenets of Austrianism were upheld by the "founding fathers" of the Austrian School	An absolute insistence on methodological individuals as an a priori heuristic postulate; A deep suspicion of all macroeconomic aggregates such as national income or an index of prices in general; A firm disavowal of quantitative testing of economic predictions and, in particular, the categorical rejection of anything that smacks of mathematical economics and econometrics; And lastly the belief that more is to be learned by studying how market processes converge on equilibriums than by endlessly analyzing, as most economists do, the properties of final equilibrium states (according to Blaug, 1980: 93)

(1994) calls this a *categorical ontology of economic reality* in an Aristotelian sense. There are two orientations regarding the laws of nature in Menger's treatment (1985): *a realistic or empirical* orientation of laws that can be understood as regularities or events and an *exact* orientation of laws that constitutes scientific knowledge. For instance, Menger (1985, ch.4: 57–58) advances:

> The scientific knowledge to which the above orientation of theoretical research, the empirical-realistic, can lead, merely in consideration of the methodological presuppositions of the latter, can only be of two kinds:
>
> (a) *real types*, basic forms of real phenomena, within the typical image of which, however, a more or less broad scope is given for particularities (also for the development of the phenomena!), and
> (b) *empirical laws*, theoretical knowledge, which make us aware of the actual regularities (though they are by no means guaranteed to be without exception) in the succession and coexistence of real phenomena.
> . . . .
> Not only in the realm of ethical world, and of economy, but also in that of natural phenomena, the realistic orientation of theoretical research can lead only to "real types" and "empirical laws". And in the above point of view, at any rate, no *essential* difference between the ethical and the natural sciences exists, but at most only one of *degree. The realistic orientation of theoretical research excludes in principle, rather, in all realms of the world of phenomena the possibility of arriving at strict (exact) theoretical knowledge.*

The two passages above illustrate the synthesis between Kantian transcendentalism and Aristotelian realism by juxtaposing the two orientations. The insistence on real and empirical laws has an Aristotelian connotation (see Barnes 2000: ch.13) whilst the idea that exact, theoretical knowledge about the world is not entirely possible represents an idealist, Kantian vision of reality (see, for instance, Wood 2010).[7]

The consequence of the Aristotelian influence on Menger's work is that ontologically and methodologically he is an individualist and a subjectivist (Smith 1994). Whilst subjectivism illustrates an "exclusively subjective reality" and a profound outlook of the subject (first person) as a point of departure, individualism starts with the third person (he/she, that is, the view of the other as a being independent and separate from the subject, objective reality) that is unique and

unrepeatable. Human action refers to a subjective reality (first person, subject, consciousness, thoughts, feelings, intent) and also to objective reality (the object, the act in itself). In the Austrian tradition, subjectivism implies that the way people behave in the economic environment depends on their experiences, beliefs, and expectations. Subjectivism concerns the underlying beliefs, decisions, expectations, preferences, habits, tastes, and so on of all microeconomic and macroeconomic phenomena. Thus, subjectivism and individualism are complementary.

Methodological individualism claims that society is formed of purposefully acting individuals whose experiences are the sole foundation of factual knowledge. There seems to be a disagreement regarding the use of methodological individualism within the Austrian school. Denis (2009, 2010) argues that Menger and Mises adopt a reductionist ontology and a reductionist type of methodological individualism, meaning that phenomena are to be understood as the result of entities taken in isolation, whilst Hayek adopts a holistic ontology in the sense that phenomena may be seen and interpreted based on the interrelationships between entities. Evans (2010) understands methodological individualism as the primacy of the individual over the collective and a reduction of all social events to the individual level. In his conception, methodological individualism does not presuppose atomistic agents, but allows causality in terms of social structures. Whilst neoclassical economics is built upon an atomistic, reductionist form of methodological individualism, Mises and Hayek have grounded their methodological individualism conception in a realistic form of ontology that distinguishes them from atomism and holism:

> Austrians such as Menger, Mises, Hayek and Kirzner utilized a fundamentally different form of methodological individualism to neoclassical economists, and this chapter has argued that (1) their methodological position entailed an ontological justification that should be more explicit; (2) they gave room to causal explanations that stemmed from non-reducible institutional factors. (Evans 2010: 11)

Madison (1990) argues as well against the atomistic view of Hayek's methodological individualism that characterizes modernist thinking and advances a hermeneutic interpretation of the human being in

Hayek's work. We contend that despite the fact that approaches regarding the methodological individualism differ within the Austrian school, in essence this methodology has the same meaning, that is, grounding the social analysis on the individual.

Epistemological apriorism is used by Menger in order to build economic axioms, and this was later developed by Mises as a theory of human action, that is, praxeology (see [1949] 1999). For Mises (1999), praxeology (like logics and mathematics) is an a priori science, meaning its propositions are not derived from experience and they imply, through the use of deduction, an unconditionally valid knowledge. Mises (1999)'s epistemology of Kantian origins is founded on the idea that knowledge is independent of experience and of any sensorial impressions. These a priori elements of the intellect have the following characteristics:

a. They are precedent from logical point of view to any actual understanding and experience;
b. They are not directly deducted from experience;
c. They are universal;
d. They have an intrinsic character;
e. They need to be clear and have apodictic certainty (A. Negru 2011: 62).

Praxeology is based on the fundamental axiom that individuals act consciously towards certain goals. Rothbard (1997: 59) states: "since praxeology begins with a true axiom A, all the propositions that can be deduced from this axiom must also be true. For if A implies B, and A is true, then B must also be true." In what was to become known as "radical apriorism," Rothbard (1997: 60) stated: "Apart from the fact that these conclusions cannot be "tested' by historical or statistical means, there is no need to test them since their truth has already been established." It is very interesting to note the degree of variation in epistemological presuppositions used by Austrian economists, even amongst the "apriorists." Mises adhered more closely to Kantian apriorism, or the fact that the conception of action is a priori to all experience, whereas Rothbard, following Menger, is an Aristotelian: the fundamental axiom of action is derived from experience, and therefore is empirical.

Hayek, although a student of Mises, had a different conception in terms of methodology. Although influenced by Mises regarding his ideas on socialism and business cycles, Hayek has never endorsed the Misesian axiomatic approach of apriorism (see Shand 1990; Gray 1984) although there is a less plausible argument that Hayek has tried to combine praxeology and the Popperian falsifiability (see Barry 1979). Hayek's substantive economics is underlined by various philosophical presuppositions. Lawson (1994) talks about Hayek's continuous change and transformation whilst Fleetwood (1995) distinguishes three phases within Hayek's work: the period up to 1936 or Hayek I; 1936–1960 Hayek II; and after 1960 Hayek III. Fleetwood's thesis (1995) is that prior to 1936 Hayek might be defined as a positivist; between 1936 and 1960 he adopts a synthesis of subjective idealist epistemology and empirical realist ontology. After 1960 he endorses a position that Fleetwood (1995: 6) calls quasi-critical realist or transcendental realist.

Arising from this pattern of development, an important defining characteristic emerged in relation to the demarcation of the Austrian school: an approach to economics that is deeply embedded within philosophical roots and that informed its methodological approach. One of the themes that pervades Hayek's work ([1952] 1979) is his attitude towards making social sciences irreducible to natural sciences or *scientism*. Hayek (1979) advances two arguments against *scientism*: the methods of sciences are not appropriate for the study of society as the facts of the social sciences have a subjective nature and social facts are too complex to be able to be measurable. Thus, one of the biggest differences between the neoclassical and Austrian method is the use of *subjectivism* and the inapplicability of natural science methods to social sciences. It is in this respect that the Austrian school has received criticism: subjectivism leads to a problematic ontology, open to an "anything goes" ontological position (see Lawson 1997; Lewis 2005). Beaulier and Boettke (2004) defend the ontological realism of Austrians, which even though not obvious in his earlier writings, was developed by Hayek into a strong commitment in his later writings. Moreover, they assert that Lawson's and Lewis's interpretation of Austrian ontology stems from a misunderstanding of the Austrian commitment to an individualist ontology. Against Lawson and

Lewis, Beaulier and Boettke claim that Austrians do have a social ontology, and that the role of social structures and institutions is fully recognized within their theoretical frameworks.

It is possible to state that Austrian proponents encapsulate interests spanning the complete horizon of economic issues. There is a consensus that Austrians favor free markets, a minimal role for the state, and a definite rejection of positivism and the methods of orthodox/mainstream economics. Modern Austrians are seeing their work as an "extraordinary science" in Kuhnian terms and as an alternative to mainstream economics and they emphasize in particular a radical rejection of econometrics as a tool of analysis in the economic theory (see, for instance, Dolan 1976). Dolan (1976) summarizes very well the Austrian position regarding mainstream economics: "Orthodox economists, influenced by positivist and behaviorist methodological principles, are uncomfortable with the concept of action because the second, counterfactual component is not directly observable. As a consequence, orthodox theories tend to be couched exclusively in terms of observable events and the so-called empirical relationships among events."

Despite the existence of the Hayekian and Misesian strands and plurality of approaches and a variety of definitions given to different concepts, there are four elements that are fundamental to Austrian economics: subjectivism, individualism, skepticism of empirical methods in economics (a rejection of prediction, mathematical modeling, and econometrics in economics) and, under the influence of Mises, for the next generations of Austrians an adherence to an agenda that supports market processes and economic, social, and political freedom. From the quantity and quality of common elements results the distinctiveness of the Austrian school from other schools of economic thought. All these common elements are interrelated and represent the sides of the same coin. If the private experiences of individuals are interpreted as the basis of factual knowledge then the remaining elements follow without difficulty. The Misesian notion of conscious, purposeful human action is consistent with methodological individualism. Subjectivism implies that there are no observable facts in the social sciences and only the evaluations and attitudes of individuals are the object of study of economists whose actions are

unpredictable and unknowable. This explains the skepticism of Austrians regarding macroeconomic aggregates and the rejection of mathematical and physics methods into economics.

The Austrian school provides a perfect example of the tension that can exist within a school of thought between coherence and plurality. Whilst it can legitimately claim (in the form of subjectivism, individualism, rejection of positivism, econometrics, mathematical-modeling, and focus on market processes) to be sufficiently coherent (in the broad form identified in this article) and distinct so as to constitute a separate school of thought, the Austrian school can be equally characterized by its plurality of philosophical underpinnings and methodological approaches.

Concluding Remarks

In this article ambiguities associated with the concept of a school of economic thought have been examined. Schools of thought represent flexible, evolving entities or forms with diffuse boundaries that play a useful role in economics as they embody a place of dialogue and debate amongst its members and economists of all orientations. The article has argued that a school of thought can be interpreted as an entity that comprises both a system of thought (that is, its object of study) and its member practitioners. Furthermore, a school of thought must exhibit a certain degree of coherence and a school must be distinctive from other traditions of thought. Both coherence (defined here as homogeneity and the logic of the internal system of thought) and distinctiveness can be analyzed at the levels of ontology, epistemology, methodology, ethics and axiology, and ideology and also the agenda or objectives of that school (that sometimes is derived from ideology but this is not a necessary condition).

Homogeneity and coherence defines partially a school of thought, but in terms of its current juxtaposition with the concept of plurality it presents a problem. Is it possible for a school of thought to exhibit plurality, whilst still retaining a degree of homogeneity that can operate as a locus around which a school of thought can be centered? The crucial issue here concerns the degree of homogeneity and coherence, and the form in which it manifests itself. It is through the

common elements that hold together the Austrian economists and that also consistently fit together that we can distinguish the Austrian school from other traditions of thought in economics. As shown in this article, the "birth place" or the point of departure of the Austrian tradition has been the marginal revolution or marginalism. Although ontologically the Austrians have achieved an Aristotelian and Kantian synthesis, the degree of homogeneity and coherence debate is crucial at two levels: (1) the level of methodology (as subjectivism, individualism, and a rejection of mathematics, prediction, and econometrics in economics) and (2) at the level of agenda and common objectives (an orientation towards market processes and the flourishing of capitalism; even libertarianism for modern Austrians). Under the influence of Mises (1999) epistemological apriorism is a characteristic of the modern Austrian system of thought, with the exception of Hayek. Austrianism serves to remind us that even in circumstances where there is a degree of plurality in terms of ontology, methodology, and so on a school of thought can still be accepted as existing within the economics discipline. Ultimately, adopting a *broader* conception of coherence (as defined in this article) plurality does not threaten the legitimacy of a school of thought.

Notes

1. Earlier versions of this article have appeared as a Working Paper with Nottingham Trent University (2006/no.3) entitled "On Homogeneity and Pluralism Within Economics Schools of Thought," Chapter Six of my Doctoral thesis with Nottingham Trent University (submitted 2007), and as a chapter: "Pluralism Within the Austrian School" in *Essays on Praxeology: Rothbard and The Austrian School*, (eds.) Ioana Negru, Anca Negru, and Stephen D. Parsons, 2011, pp. 130–163, Iasi, Romania: Institutul European.

2. This is found at http://homepage.newschool.edu/~het/thought.htm.

3. Of course, in philosophy there also movements that do not refer to an exemplary figure, such as empiricism and existentialism.

4. On a critique of Kuhn's usage of the term "paradigm," see Shapere (1964) and Buchdahl (1965).

5. Lawson (2006) mentions also the debate on coherence in institutional economics (Rutherford 2000) although Rutherford (2000) does not use the term coherence and the debate had not been as ample as in the post-Keynesian economics.

6. Hodgson (2001) offers a very good review of interpretations of Menger (see Chapter 7).

7. Wood (2010: 245) commenting on the Second Chapter of Book Two of the Transcendental Dialectic in Kant's *Critique of Pure Reason* states: "One aim is to show that any pure rational doctrine of the world's constitution is led inevitably, through a system of cosmological ideas or pure concepts of reason, into contradictions, based not on contingent errors of any individual metaphysician but on reason's own necessary principles and procedures."

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