

# 14 Euclideanism versus

## Hermeneutics: A Reinterpretation of Misesian Apriorism \*

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### INTRODUCTION

Now the determination of economic quantities, as far as this is possible, is obviously a goal of any economic theory and thus of any market theory. But for a method of analysis that is also concerned with the interpretation of the meaning of action, this determination is only the first step. The real task is to explain how relations between quantities derive from mental acts.

Ludwig Lachmann (1977, p. 113)

Perhaps the most significant event propelling the modern revival of Austrian or subjectivist economics in the United States in the 1970s was the arrival at New York University of Ludwig Lachmann. First drawn to Austrian ideas by the methodological writings of Ludwig von Mises in the 1930s, Lachmann had already maintained a lifelong dedication to the advancement of subjectivism. Yet his arrival at NYU was tumultuous. This was an Austrian of a different stripe. Many of us were at first alarmed by his radical critique of what he called "formalistic" neoclassical theory, a critique that seemed to come perilously close to a complete rejection of all economic theorizing, that is, to historicism.<sup>1</sup> We were confused by his injection of names like Max Weber, Paul Davidson, and George Shackle into our discourse, and we continue to quarrel with him over the nature of Keynes' contribution. The American followers of Mises seemed to have developed a very different brand

of Misesian economics from that brought to New York by Professor Lachmann.

While it would be much too strong to say we are all Lachmannians now, it is clear that after ten years of his influence American Austrians will never be the same again. It is not that fears of some historicist tendencies in Lachmann's work have been altogether dispelled. But he has challenged us in several important ways that forced us to improve our economics. We now take more seriously the difficulties with neoclassical economics to which he drew our attention and this has led us to reexamine many aspects of our own theories. He has forced us to go beyond theoretical discussions of the market and to examine real-world market institutions. He has made us never forget the importance of expectations in economics. And perhaps most significantly of all, he has directed our attention at what I now believe is the chief obstacle to progress in contemporary economics, the overexalted respect for formalistic at the expense of interpretive modes of explanation.

This paper is offered to Professor Lachmann as an attempt to extend this last theme, the critique of formalism. I believe that Lachmann's antiformalism, unlike that of historicists, does not deny the need for systematic theory. Here I will not, however, be trying to substantiate this interpretation of Lachmann as a nonhistoricist. Rather, I will try to show that the literature that drew Lachmann into economics, Mises' methodological work, which has been widely interpreted as itself a kind of formalism (which I will call Euclideanism), may instead be seen as a kind of antiformalism along broadly Lachmannian lines (which I will call hermeneutics). Although the textual evidence is mixed, there are discernible, if heretofore almost completely ignored, antiformalist strands in Mises' methodological thought which should attract followers of Mises toward some of the very methodological directions in which Lachmann has been pointing us.

In view of the fact that both friends and foes of Mises from Hayek to Hutchison have agreed in seeing his methodology as a Euclidean one, some justification seems appropriate at the outset for this exercise in reinterpretation. There are two general considerations that suggest that the strictly Euclidean interpretation may be an incomplete view of Mises' apriorism. First, the distinction, upon which Mises vigorously insisted, between theory and history, has been frequently misinterpreted as a strict dichotomization that isolates these two cognitive processes completely from each other. But, in fact, Mises not only mixed historical observations in with all his own theoretical expositions but even explicitly said that theory and history are absolutely necessary

for one another. They are described as two incomplete halves of the human sciences. There is, indeed, a difference between the particularizing intent of history and the generalizing and systematizing intent of our cognitive processes. Mises called these aspects, respectively, understanding and conception. All he was saying is that "What has happened?" questions are not the same thing as asking: "What can happen?" questions. But the theory and history are nevertheless two inescapable aspects of what is ultimately one integrated intellectual endeavor. Good theory cannot be developed without a background of information about "what has happened," just as telling the story of what has happened requires drawing conclusions about what can. We necessarily construct systematic theory by a continuous weaving back and forth between these complementary halves of cognition. When this complementarity between theory and history is kept in mind, many otherwise objectionable aspects of Mises' apriorism appear much more reasonable. History cannot refute theory, Mises says, but then he goes on to point out that it is precisely history that tells us what parts of our theorizing are applicable to the real world. Thus, theory is not nearly as insulated from "the facts" as some of Mises' own pronouncements suggest. Moreover Mises' description of his apriorism as "strictly deductive," taken in light of this complementarity between theory and history, can be seen as an answer to historicists. Mises may not have desired his "strict deduction" to restrict cognitive processes to a linear, Euclidean form of argument, but rather to insist on the power of the conceptual process, of discursive reasoning in its wider sense as opposed to empirical fact finding.

The second general consideration that raises some doubt about the strictly Euclidean interpretation is the ambiguity surrounding Mises' use of the two words *praxeology* and *apriorism*. The first word was coined to substitute for his earlier use of the word *sociology*, which he believed came to be too contaminated with positivism and Marxism. He borrowed the second from neo-Kantian philosophers but put it to his own use. Most interpreters have assumed that Mises intended these words narrowly to refer to his own brand of economics, in which case a statement like "All economics must be aprioristic and praxeological" is taken as an exclusivist prejudice. We shall see, however, that in some contexts Mises uses these words in a much wider sense, to refer not to how he thought economics should be, but how it is and has been, throughout the history of the science. Many of Mises' most Euclidean-sounding passages take on a whole new meaning if these two considerations are borne in mind.

If I am right that there is a hermeneutic way of reading Misesian apriorism, then many of the harshest criticisms of Mises' methodology become problematic. The dogmatism and rigidity, the antagonism to empirical work, and the confident air of completeness and apodictic certainty that has infected some of his admiring followers and infuriated some of his fiercest enemies are all symptoms of the Euclidean style of thought. To the extent that Mises' apriorism can be recast as hermeneutic instead, to that extent, I believe, his methodology takes on a new power and eloquence for today. And, incidentally, Lachmann's distinctively hermeneutical brand of economics correspondingly takes on a new significance for the American followers of Mises who had found Lachmann's work so outlandish a decade ago.

#### TOWARD A NON-EUCLIDEAN MODEL OF COGNITIVE SYSTEMATIZATION

From Aristotle's day until the Age of Reason—and well beyond—it was generally thought that all of our knowledge of the observable world could eventually be organized into a single vast deductive system along the lines envisaged by the Euclidean model. . . . In modern times, this Euclidean picture of scientific cognition was first seriously questioned in the wake of the era of Romanticism by those who sought to uphold the existence of distinct scientific methodologies, differing as between the sciences of man and the sciences of (extra-human) nature. . . . German participants in this *Methodenstreit* as Wilhelm Dilthey, Wilhelm Windelband, and Heinrich Rickert held in effect that the ahistorical, analytical, and nonevaluative *Naturwissenschaften* are committed to a Euclidean model of systematization, whereas the historical, synthetic and evaluative *Geisteswissenschaften* required something along the lines of a network model. Nicholas Rescher (1979), pp. 56–7.

Many of the subjectivist followers of Ludwig von Mises, including Professor Lachmann and most of Mises' methodological critics, have expressed a certain dissatisfaction with the language in which Mises cast his method for a general science of action. Mises sometimes presents his apriori science as what Imre Lakatos called a Euclidean system, a privileged category of knowledge, uniquely certain and immune to all criticism. It was built from a set of self-evident axioms from which strictly deductive arguments can be cranked out mechani-

cally. Mises and his followers like to insist that since in economics any investigation of historical facts necessarily presupposes a theory that is able to make sense of those facts, therefore theory is *prior* to, rather than tested by, history. An apriori approach is distinguishable from an aposteriori one in that while the former primarily strives to test the intelligibility of a conjectural historical account against believed theories, the latter strives primarily to test the applicability of conjectural theories against believed facts. Sophisticated proponents of each can today admit that theories and facts test one another in different phases of scientific research. But there was a time when a naïve version of aposteriorism dominated the natural sciences completely and seriously impinged upon economics and other social sciences. Naïve aposteriorism holds that theories are strictly subsidiary to the facts which neither should, nor need to, be theory laden.

It was in this environment, in which the successful natural sciences were thought to build their theories from a neutral accumulation of facts, that Mises declared his economics to be apriori. The argument he used to support this claim—that all facts in his discipline are theory laden—is today widely accepted to be true of facts in the natural sciences as well. In this sense we can almost say we are all apriorists now.

But there is, so to speak, both more and less to Mises' apriorism than this rather uncontroversial view that facts are theory laden. The "less" is an implication Mises leaves (which I will call Euclidean) that no historical account can ever cause us to go back and reconsider our apriori theory, thus suggesting that theories are somehow epistemically privileged and safely dichotomized from history. This view makes economics seem too different from the natural sciences. The "more" is the insight (which I will call hermeneutic) that for any economic explanation to be acceptable it must relate the observed phenomena to their underlying meaning in terms of the individual purposes whose interplay constitutes an economic system. That is, social sciences like economics must not only explain what happens, as a physicist might explain the motion of a planet, they must also understand the meaning of what happens to those to whom it happens. This view shows in what respects there are genuine differences, at least in degree, between the natural and social sciences.

Unfortunately while the Euclidean aspects of Mises' apriorism have been well documented and appropriately criticized, the more promising hermeneutic aspects have not. As a result, Mises' whole methodological contribution is dismissed for its Euclidean vices without any recogni-

tion that its hermeneutical virtues exist. Thus, much depends on how the textual evidence stacks up concerning these alternative readings of Mises' apriorism. But before examining this textual evidence it is necessary to state somewhat more directly if perhaps a bit simplistically just what these alternatives will be understood to entail.

Euclideanism and hermeneutics can be seen not so much as alternative methods but as two contrasting views of the relationship between methodology and science, and more broadly as contrasting styles of thought. Euclideanism is a more prescriptive methodology while hermeneutics is a more descriptive one. Euclideanism is represented as a fixed deductive structure into which economists are told they ought to fit their arguments in order to keep up with the philosophers' standards of true scientific objectivity. Hermeneutics is rather what Rescher calls a network model, an approach that bases its assessment of what is scientific by a reliance on the pragmatic judgments of systematicity, coherence, clarity, etc., by members of the scientific community. Here what is acceptable is not what meets the preestablished epistemological criteria of the methodologists but simply what works, i.e., what persuades effectively.

The difference between these styles of systematization is not simply that Euclideanism dares to recommend methods while hermeneutics timidly abstains from doing so. The difference is rather that the Euclidean methodological prescription is logical (from one mind), ahistorical, and confining, whereas the hermeneutic one is dialogical (from the scientific community as a whole), historical, and open ended. Hermeneutics derives its standards from examining the history of thought and from the living "conversation" that is science, while Euclideanism strives to stand above the practicing scientist and judge his work by extrahistorical, logical standards.

If Euclideanism takes its model to be axiomatic geometry what is the contrary model of hermeneutics? The Dilthey/Weber tradition is an extension into the social sciences of the methods of textual interpretation, mainly Biblical and legal exegesis and language translation, which trace back into ancient times. Its modern revival, in the able hands of such writers as Clifford Geertz, Hans-Georg Gadamer, and Paul Ricoeur, has turned this interpretive approach to explanation in the social sciences into an extremely powerful philosophical school with important implications for contemporary economics.<sup>2</sup> Thus this paper, a textual reinterpretation of Mises, is both about and an example of the hermeneutical method. Understanding the meaning of a written text often requires a sustained effort; a tentative formulation of the meaning

of the whole (say, Mises' life work) is checked against the meaning of particular parts (say, his methodological chapters at the beginning of *Human Action*, or that book's opening sentence). The revision of the meaning of these parts then requires a new hypothesis about the meaning of the whole, and the dialogical process continues.

To support the need for systematic theory in the cognition of social phenomena need not, then, demand a Euclidean procedure for establishing systematization. In his book *Cognitive Systematization*, Nicholas Rescher advances a general case for non-Euclidean procedures for ensuring, as far as possible, that our scientific explanations are integrated, coherent systems of knowledge. Euclideanism takes as its ideal a fully axiomatized, linearly constructed system of strict deduction along the lines of Euclid's geometry. What Rescher calls the "network model," while it too strives to uphold knowledge as an integrated, coherent system, constitutes a fundamentally different path for cognitive systematization. He refers (1979, p. 46) to three critical points of difference between these two models of systematization.

- (1) The network model dispenses altogether with the need for a category of basic (self-evident or self-validating) foundational or "protocol" theses capable of playing the role of axiomatic supports for the entire structure.
- (2) The structure of the arrangement of theses within the framework of the network model need not be geological: no stratification of theses into levels of greater or lesser fundamentality is called for. . . .
- (3) The network model accordingly abandons the conception of priority or fundamentality in its arrangement of theses. It replaces such fundamentality by a conception of emmeshment in a unifying web—in terms of the multiplicity of linkages and the patterns of inter-connectedness with other parts of the net.

The Euclidean model has extremely stringent requirements which have made it increasingly difficult to uphold, even in its domain of geometry. It requires a linear construction from the most fundamental axioms toward the less fundamental derivation such that, as Rescher (1979, p. 52) puts it, "Nothing whatever that happens at the epistemically later stages of the analysis can possibly affect the starting-point of basic truths." These basic axioms are thus rendered completely "exempt from any retrospective re-evaluation in the light of new information or insights." By contrast, the network model of cognitive systematization permits a recursive movement between its parts, none

of which need have any absolute epistemic priority over any others. In the face of a variety of devastating criticisms from philosophy, mathematics, and cognitive science, Euclideanism, once the dominant model of science, has been all but defeated in virtually every field of thought. Lakatos (1978, p. 90) shows that Euclideanism even in mathematics truncates the critical process by artificially injecting "intuitively indubitable first principles" and perfect reasoned "facts" into science where only more or less tentative conjecture properly belongs.<sup>3</sup> It retains a foothold, as Imre Lakatos pointed out, only in mathematics (where it seems to be only a minority view) and "in those underdeveloped subjects where knowledge is still trivial, like ethics, economics, etc."<sup>4</sup>

Lakatos refers to Ludwig von Mises (along with a methodological follower of Mises, Lionel Robbins) as his example of a Euclidean economist.<sup>5</sup> Indeed, the esteemed historian of economics, T. W. Hutchison, has shown that many of Mises' own statements about his methodology lend fairly strong support to Lakatos' interpretation.<sup>6</sup>

The thesis of this paper is that, Hutchison and Lakatos, to the contrary notwithstanding, Ludwig von Mises' methodology can at least as readily be interpreted as a network as it can as a Euclidean model of cognitive systematization. In particular, a direct influence upon Mises' thought can be found from the very continental tradition of hermeneutics which Rescher calls the first to seriously question Euclideanism. Hutchison's textual evidence for Mises' Euclideanism cannot be lightly dismissed, nor can it be argued that Mises' own explicit descriptions of his methodology are free of some Euclidean "contamination". When in the next section Hutchison's textual case is examined closely, however, and set against other textual evidence, it is far from conclusive.

This is a paper whose chief purpose is "merely" exegetical. I ask the doctrinal question what Mises "really meant" when he called economics aprioristic. Today such backward-looking questions are deemed quite secondary to the forward-looking development of economic theory. Hence, I should clarify, before commencing with the exegesis, that I do not accept this received view of the secondary nature of exercises in the history of thought. I view doctrinal history as paradoxically forward looking in the sense that its proper goal is not the historicists' one of attaining an empathic understanding of what was in somebody's head in the past, but rather reworking the latent meaning of a text in terms of its relevance for today. My aim is to see how Mises' methodology "speaks to us" as the hermeneutical philosophers say, and what can be done in the future with various insights.

## TEXTUAL EVIDENCE FOR THE EUCLIDEAN INTERPRETATION

The theorems attained by correct praxeological reasoning are not only perfectly certain and incontestable, like the correct mathematical theorems. They refer, moreover, with the full rigidity of their apodictic certainty and incontestability to the reality of action as it appears in life and history. Praxeology conveys exact and precise knowledge of real things.

Ludwig von Mises (1966, p. 39)

Evidence for the Euclidean interpretation of Mises is by no means superficial. The methodology of the science of *Human Action* which Mises explicitly formulated in his economic treatise of that name, was cast in Kantian terms and often described as a special category of knowledge that was inherently beyond any criticism. It is boldly presented as if it represented a completely unique category of knowledge. In its purely formal and deductive character, praxeology is described as similar to logic and mathematics; it is even directly compared with Euclidean geometry. In the passages that surely provide the best evidence for the Euclidean interpretations of his method, Mises writes

Aprioristic reasoning is purely conceptual and deductive. It cannot produce anything else but tautologies and analytic judgments. All its implications are logically derived from the premises and were already contained in them. Hence, according to a popular objection, it cannot add anything to our knowledge.

All geometric theorems are already implied in the axioms. The concept of a rectangular triangle already implies the theorem of Pythagoras. This theorem is a tautology; its deduction results in an analytic judgment. Nonetheless nobody would contend that geometry in general and the theorem of Pythagoras in particular do not enlarge our knowledge (1966, p. 38).

The stance of apriorism as knowledge that is uniquely unquestionable or as Mises liked to put it, "apodictically certain," is the position Hutchison understandably finds so offensive to the sensibilities of contemporary methodologists. At the very least it has to be admitted that Mises is a bit free with his pronouncements of economic theorems that are "perfectly certain and incontestable, like the correct mathematical theorems."

Moreover he seems to be claiming not only uniqueness but also an exclusivity for his approach, as when he declares that "For the comprehension of action there is but one scheme of interpretation and analysis available, namely, that provided by the cognition and analysis of our purposeful behavior" (1966, p. 26). Such exclusivity would suggest an insulation from criticism which, Hutchison rightly reminds us, would certainly violate the spirit of the growth of knowledge literature.

Hutchison says that Mises "traces the impossibility of questioning *a priori* judgments back to introspection," by which Hutchison means some sort of purely private knowledge that is essentially beyond criticism. To show that this was Mises' meaning, Hutchison supplies a quotation where Mises uses the word introspection and emphatically insists on the unique unquestionability of praxeological knowledge:

What we know about our own actions and about those of other people is conditioned by our familiarity with the category of action that we owe to a process of self-examination and introspection as well as of understanding of other peoples' conduct. To question this insight is no less impossible than to question the fact that we are alive.<sup>7</sup>

Furthermore, Hutchison says that Mises "completely rejects" Karl Popper's demarcation principle between science and non-science, and Hutchison supports this charge in another rather emphatic quotation:

If one accepts the terminology of logical positivism and especially also that of Popper, a theory or hypothesis is "unscientific" if in principle it cannot be refuted by experience. Consequently, all *a priori* theories, including mathematics and praxeology, are "unscientific." This is merely a verbal quibble. No serious man wastes his time in discussing such a terminological question. Praxeology and economics will retain their paramount significance for human life and action however people may classify and describe them.<sup>8</sup>

Aside from again misleadingly lumping praxeology and mathematics together, Mises can be charged here with treating Popper's point with less respect than it deserves. There are, after all, such things as dogmatic systems of thought which can explain everything that can

imaginably occur and therefore can really explain nothing. Most branches of Marxism/Leninism would undoubtedly be classified by both Mises and Popper as unscientific in this sense. Every empirical science deserving of the name must be ready to deny the possibility in the real world of some imaginable states of affairs.<sup>9</sup>

Moreover, Mises' view of the natural sciences appears to modern eyes to be somewhat naive, as when he remarks that the history of the natural sciences, unlike that of the human sciences, "is a record of theories and hypotheses discarded because they were disproved by experience" (1966, p. 41). This interpretation of the natural sciences led him in general to exaggerate the differences between these and the human sciences, and in particular to concede that the natural sciences "have no use for understanding" (1966, p. 61), which is "the specific mental tool of history" (1966, p. 51). In light of the writings of such philosophers of the natural sciences as Popper, Lakatos, and Michael Polanyi this concession to positivism for the natural sciences can no longer be accepted.

Mises also could be charged with exaggerating the difference between disagreements among scientists, on the one hand, which he thought were "open to a settlement by 'objective' reasoning," and, on the other hand, disagreements among historians. In the latter, in so far as the argument is over "judgments of relevance," he says, "It is impossible to find a solution which all sane men must accept" (1966, p. 58). Although he recognized that the "understanding of the historian is always tinged with the marks of his personality" and "reflects the mind of its author," he was under the illusion that knowledge in the natural and social sciences was categorically different, purely aposterioristic or aprioristic, and unsullied with any such personal tinges. It seems to me that Michael Polanyi (1958a; 1958b) has now shown, beyond any reasonable doubt, that all knowledge is unavoidably tinged with a personal component.

In all these respects, to the extent that praxeology is presented as uniquely unquestionable knowledge, Mises does, in my view, leave himself open to Hutchison's charge of dogmatism. If praxeology is to be a science, it must reject Euclideanism and permit its first principles, its chains of deductive reasoning, and its modes of application to the real world, to be challenged by serious criticism. If Mises' insistence on the certainty of the axioms and derived conclusions of praxeology is an exclusionary device, employed to remove his ideas from the threat of challengers, then the scientific community has no responsibility to take him seriously.

#### TEXTUAL EVIDENCE FOR THE HERMENEUTIC INTERPRETATION

Reasoning and scientific inquiry can never bring full ease of mind, apodictic certainty, and perfect cognition of all things.

Ludwig von Mises (1966, p. 25)

But is this Euclideanism really what Mises' apriorism is supposed to be all about? Even in the evidence just provided for the Euclidean interpretation, there are intimations that an altogether different reading of Mises is possible.

Take, for example, the opening two quotations for these sections where Mises first refers to praxeological theorems as apodictically certain and then denies that any scientific process can yield apodictic certainty. Although there is no question but that the first quotation has a distinctively Euclidean tone, Mises only explicitly says here that the true theorems of praxeology are apodictic, leaving unanswered the question: How do we know for certain that any praxeological theorem is true? Perhaps this sounds like hairsplitting, and maybe in this case we simply have Mises contradicting himself. But it seems conceivable that Mises was trying to insist emphatically on the possibility of true knowledge from praxeological reasoning against those forms of historicism which leave no room for this possibility, not to assert a unique, Euclidean uncriticizability for the products of such reasoning. True theorems in mathematics are genuine additions to human knowledge even though they come from within the mind as a product of deductive effort and not from without the mind as a product of empirical observation. Perhaps Mises' aim was to open his readers to the possibility of such knowledge from within in the case of praxeology, not close it off in Euclidean fashion from rational criticism.

When Mises said there is "but one scheme of interpretation" open to the study of human action the scheme that treats it "as meaningful and purposeful behavior"—he may not have been claiming exclusivity for his particular economics. He may have only been pointing out what Dittley, Weber, and Schultz had stressed, that it is impossible "to grasp human action intellectually . . . without entering into the meaning which the acting parties attribute to the situation" (1966, p. 26). The way Mises describes the earliest realization that there are regularities in economic phenomena is that people discovered that "there is another aspect from which human actions might be viewed than that of good and bad, of fair and unfair, of just and unjust" (1966, p. 2). This

suggests that Mises views economic theory as providing us with a workable scheme for the subjective interpretation of human conduct and one which is not the only such perspective possible.

When Mises talks about introspection or "knowledge from within" it is presented not as private knowledge but as what hermeneutical philosophers call "intersubjective." The realm of the intersubjective is, for hermeneutics, definitely, not insulated from rational criticism. Mises, moreover, does not trace the supposed certainty of his apriori axioms to introspection alone, but adds the phrase "self-examination and understanding . . . other peoples' conduct," suggesting that he may have meant by the apriori what in the hermeneutics literature is also called "knowledge from within." And when Mises asserts that to question the apriori "is no less impossible than to question the fact that we are alive" he might be read as saying no more than that, as contributors to the hermeneutics literature such as Schutz argued, those who try to suspend judgment on whether other minds are intelligent will in any case contradict themselves in practice by arguing their behavioristic case to other "minds" in the scientific community. The level of practical, common-sensical reasoning in the day-to-day affairs of men, the level of already existing meaning which some writers in the hermeneutics tradition calls "the intersubjective life world," is taken for granted by all active scientists when they try to persuade one another. In the sense it is apriori but it is not immune to criticism. The foundation of all our scientific knowledge lies in the fact that when we learn to speak we all enter this life world and learn to share its tacit meanings, but science begins with a questioning and refinement of our common sense. The hermeneutic apriori, unlike the Euclidean, is not a list of explicit, self-evident intrasubjective axioms from which a science is deduced but a level of pre-given intersubjectivity, of common understanding which precedes and sustains science.

As for the rejection of Popper's criterion of falsifiability, it is notable that Mises sees this criterion not so much as incorrect, but as insignificant. It is only a verbal quibble. This admittedly terse remark might be read as referring to the distinction between theory and history. It is true that praxeology, the incomplete theoretical half of the science of human action, is unfalsifiable by any particular historical event. The empirical element of science simply comes with the other half, its application in history, when the applied economist decides what parts of theory are relevant to the case at hand. In this sense it does seem a verbal quibble to call the theoretical half of the human sciences unscientific, as it would be to complain that the Pythagorean theorem

cannot be falsified by any instances of real world triangles. In physics we ask which of several valid geometries is relevant to our space. Where Euclidean geometry is relevant, the theorems in it are true and applicable. Similarly, in the human sciences we ask which of several interpretive schemes or theories is most applicable to the comprehension of an episode of history.

Admittedly Mises' quoted comments about the natural sciences show a genuine misunderstanding of these disciplines on his part from which no effort of reinterpretation can rescue him. The growth of knowledge tradition has shown that Mises, along with nearly everyone else of his day, had a seriously flawed picture of the natural sciences. But after all, the natural sciences were not the concern of Mises' methodological writings except as an illustration of what the human sciences were not. The belief that the natural sciences are free of any personal tinges appears today to be unwarranted, but it should be noted that Mises did not see these tinges as opening the door to relativism in history. "In the exercise of understanding," he wrote, "there is no room for arbitrariness and capriciousness" (1966, p. 57).

A more serious difficulty arises with the language of axioms and theorems in which Mises' theory is cast. The reader can easily get the impression that Mises meant for economic theory to be forced into a fixed, hierarchically deductive structure, like the theorems of geometry. Yet, even here, the Euclidean interpretation is by no means the only reading of Mises possible. Although he thought of praxeology and geometry as similar in that all their "theorems" are "already implied in the axioms" (1966, p. 38), he also stated explicitly that "Economics does not follow the procedure of logic and mathematics" (1966, p. 66).

They are different, in the first place, in that "The starting point of praxeology is not a choice of axioms and decision about methods of procedure, but reflection about the essence of action" (1966, p. 39). Second, unlike geometry, praxeology "does not present an integrated system of pure aprioristic ratiocination severed from any reference to reality." Instead it adopts "a form in which aprioristic theory and the interpretation of historical phenomena are intertwined" (1966, p. 66).

Each of the differences between praxeology and Euclideanism can be seen linking Mises to the tradition of hermeneutics. The fact that the point of departure for praxeology is reflection upon the essence of action recalls Dilthey's, Weber's and Schutz's points of departure for their "interpretative sociology" far more than Russell's or Hildebreth's formalizations of mathematics or for that matter, Debeu's of economics. And Mises' intertwining of theory with history in such a way as

to view theory not as an elegant construction of formal, intellectual beauty, like mathematics, but as a practical device through which the facts of history are to be interpreted, sounds much more like the hermeneutical than the Euclidean variety of apriorism.

The language Mises uses in the following passages to explain the "apriori" and "deductive" character of praxeology suggests more a pragmatically based, open-ended, and reflective form of reasoning than any sort of strictly linear deductive structure of Euclideanism:

The scope of praxeology is the explication of the category of human action. All that is needed for the deduction of all praxeological theorems is knowledge of the essence of human action. It is a knowledge that is our own because we are men . . . The only way to a cognition of these theorems is logical analysis of our inherent knowledge of the category of action (1966, p. 64).

In calling his method aprioristic, Mises uses the language of Kantian philosophers, but he does not attempt to supply any sort of metaphysics or ontological argument for apriorism. Instead, he relies on a pragmatic argument, saying simply that circumstances enjoin upon us not a metaphysical but a methodological apriorism (1966, p. 35):

Everybody in his daily behavior again and again bears witness to the immutability and universality of the categories of thought and action. He who addresses fellow men, who wants to inform and convince them, who asks questions and answers other people's questions, can proceed in this way only because he can appeal to something common to all men . . . (1966, p. 36).

We must also accept not only the existence but also the significance of the already interpreted life-world or involve ourselves in self-contradiction. We accept the assumption that we share an intersubjectivity with one another not because of firm philosophical foundations but because this procedure works in everyday life and in science. Mises says the emptiness of positivism becomes manifest "precisely when we accept this pragmatic point of view" (1966, p. 24).

In a passage to which a reference to Schutz (1932) is attached, Mises shows that his defense of the validity of the apriori is that, practically speaking, all of us are already taking the life world for granted. Apriori propositions, such as that all humans share the same common sense logic, are to be employed because they are already in extensive use and they "work in practice and in science":

[T]he positivist must not overlook the fact that in addressing his fellow men he presupposes—tacitly and implicitly—the intersubjective validity of logic and thereby the reality of the alter Ego's thought and action, of his eminent human character (1966, p. 24).

If Mises had meant his praxeology to be a variety of Euclideanism, it would be difficult to make sense of his statement that "In asserting the a priori character of praxeology we are not drafting a plan for a future new science different from the traditional sciences of human action" (1966, p. 40). Traditional economics, sociology, and history can be said to have been hermeneutically apriorist in that they took the already interpreted life world as the pre-given object of their investigations, but they could hardly be called Euclidean. Even "regular citizens eager to comprehend occurring changes" resort to an aprioristic approach in this sense. If Mises had meant by *reasoning* the kind of strictly linear deduction favored by Euclideanism, this statement would have to reflect a peculiar misunderstanding on Mises' part of the nature of the mundane reasoning of the common man.

The so-called "purely deductive" reasoning of Misesian apriorism can be read as fundamentally different from that of Euclideanism. The latter aims at achieving a deductive structure made up of a sequence of purely logical steps which could have been arrived at by a Turing machine. For Mises, however, "Cognition from purely deductive reasoning is also creative and opens for our mind access to previously barred spheres." The task of "aprioristic reasoning," he says, is "to render manifest and obvious what was hidden and unknown before" (1966, p. 38). Moreover, contrary to the Euclidean aspirations for conclusiveness and completeness (and some of his own pronouncements), Mises admits that science "can never bring full ease of mind" and that "All that man can do is to submit all his theories again and again to the most critical re-examination" (1966, pp. 25, 68).

The only way to choose among competing interpretive theories is to try to see reality through them, one by one, to try to debate where disagreements seem crucial, and ultimately to make a judgment about which perspective renders the best grasp on the flow of events. In arguing for the aprioristic method Mises may not have been claiming special validity to his own particular development of aprioristic theory, much less his own understanding of history, but may have only been trying to echo the hermeneuticists' point that all social theorists in practice and each of us in our everyday lives view social phenomena as already interpreted, or from within. Although he emphasized differ-



ences between theory and history he did not wish to, and did not himself, dichotomize them. He insisted, as does the hermeneutics literature, that theory is a framework for the interpretation of the facts of history, more than an hypothesis to be tested by those facts. Nevertheless, there is no way to be certain in this life that one's own interpretive perspective is the best. This need not imply a retreat to a theory-less historicism but only reinforces the fact that our only way to eliminate errors is, as Mises put it, to submit our own and our fellows' work to the most critical reexamination.

## NOTES

1. George Selgin's (1985, p. 1) critique of Lachmann and Shackle, which interprets them both as historicists, points out that since the Austrian school began with Menger's devastating criticism of the historicists of his day, it would be unfortunate if contemporary Austrians were to revert to this anti-theoretical stance. While I agree with much of this critique, I am not convinced that Lachmann is an example of historicism.
2. I have elaborated at more length on the meaning and significance for economics of this modern hermeneutics literature in my paper "The Interpretive Dimensions of Economics: Science, Hermeneutics, and Praxisology" (1985) from which some passages in this paper have been borrowed. Some other attempts to relate the literature of hermeneutics to that of economics include Lachmann (1971), Grinder (1977), Langlois and Koppf (1984), Ebeling (1985), and O'Driscoll and Rizzo (1985).
3. However in the wake of the work of such mathematicians as Gödel, Church, Cohen, Lowenheim, and Skolem, Euclideanism seems doomed even in mathematics. See Lakatos (1978) and Kline (1980). As Kline (1980, p. 271) pointed out, "the Lowenheim-Skolem theorem tells us that a set of axioms permits many more essentially different interpretations than the one intended." The choice among such interpretations must be done by procedures not specified within the axiomatic system. Therefore even Euclidean systems need to be defended by non-Euclidean arguments.
4. Lakatos (1978, p. 10) exhibits here a bit of the holier than thou attitude of many philosophers of the natural sciences. In response to such claims that economic reasoning is trivial, Mises answers that economics, although "autological" nevertheless "transforms, develops and unfolds" our comprehension of reality, telling us things which without this effort would remain unknown. Before the development of systematic economics, Mises points out, "A long line of abortive attempts to solve the problems concerned shows that it was certainly not easy to attain the present state of knowledge" (1966, p. 38).
5. An argument could be made that the mathematical analysis of the general equilibrium theorist Gerard Debreu represents a less ambiguous example in economics of what Lakatos calls Euclideanism than Mises' apriorism does.
6. See especially Hutchison (1981, pp. 203-32; 266-307).

7. From Mises (1978, p. 71), quoted by Hutchison (1981, p. 210).
8. From Mises (1978, p. 70), quoted by Hutchison (1981, p. 210).
9. In this connection it is noteworthy that Mises' magnum opus ends by dramatically stressing that praxeology forbids some conceivable states of affairs: "Man's freedom to choose and to act is restricted in a threefold way. There are first the physical laws to whose unfeeling absoluteness man must adjust his conduct if he wants to live. There are second the individual's innate constitutional characteristics and dispositions and the operation of environmental factors. . . . There is finally the regularity of phenomena with regard to the interconnectedness of means and ends, viz., the praxeological law as distinct from the physical and from the physiological law . . ." (1966, p. 885).

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## 15 Economic Policy and the Capital Structure

PETER LEWIN

### I

For almost 40 years Professor Lachmann has explored the nature of the capital structure of market economies.<sup>1</sup> He has provided us with unique insights into the dynamic connections between individual plans, social institutions, the distribution of income and wealth and the capital structure.<sup>2</sup> He has always emphasized the role of expectations in human decisions. These themes are of enduring relevance and interest.

This essay explores the relationship between monetary policy and the capital structure. In particular, I examine how the logic of modern political processes and the nature of capital can lead to what we perceive as business cycles.

### II

The capital structure can only be understood in terms of the individual plans from which it derives. A production plan involves the combining of individual capital goods and labor resources in order to produce particular outputs. These capital goods stand in a complementary relationship to one another within the plan. As individual bits of machinery, raw materials, buildings, and so on, they make little sense. But when seen as part of an overall plan, they assume immediate significance. Though their individual contributions may not be disentangled, they contribute jointly to the fulfillment of the plan.

The significance of understanding capital in terms of the plans from which it derives is twofold. First, the plans provide the reference points for interpreting any given capital structure. We understand the role of capital goods in terms of the plans that they help fulfill; that is to say,