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# WHAT IS EXTREME ABOUT MISES' EXTREME APRIORISM?

BY

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CENTER FOR THE  
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## **What is Extreme about Mises' Extreme Apriorism?**

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### **Abstract:**

There is something extreme about Mises' apriorism, namely, his epistemological justification of the a priori element(s) of economic theory. His critics have long recognized and attacked the extremeness of Mises' epistemology of a priori knowledge. However, several of his defenders have glossed or ignored what is (and what has long been recognized by his critics to be) extreme about Mises' apriorism. Thus, the argument is directed less against Mises than those contributions to the secondary literature that assert his methodological moderation while glossing or plainly ignoring what the most prominent critics have found extreme about Mises' apriorism. Defending Mises as a merely moderate apriorist because he held only a narrow part of the foundation of economics to be a priori is a straw-man defense against criticisms of his apriorism as epistemologically extreme.

**Keywords:** Ludwig von Mises, Austrian economics, methodology, apriorism

**JEL Codes:** B25, B31, B41, B53

## What is Extreme about Mises' Extreme Apriorism?

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If you do know that *here is one hand*, we'll grant you all the rest.

When one says that such and such a proposition can't be proved, of course that does not mean that it can't be derived from other propositions; any proposition can be derived from other ones. But they may be no more certain than it is itself. —Ludwig Wittgenstein, *On Certainty* ([1949-1951] 1969)

There have been previous examples in the last decade or so of associates or disciple[s] [sic] of Professor Mises volunteering such explanations as that when Mises...said "a priori" he really meant "empirical." Now, according to Professor Machlup, when Professor Mises held that in economics "the fundamental postulates are a priori truths, necessities of thinking" "*all*" he "had in mind however provocative (his) contentions seemed" [w]as [sic] an "objection...to verifying the basic assumptions in isolation." —Terence Hutchison, "Professor Machlup on Verification in Economics" (1956)

[M]any economists do not consider the independent testing of the assumptions of a theory a useful exercise. But few would agree with the [Misesian] position that such testing is unnecessary because the postulates or axioms of the science of economics are known to be true with apodictic certainty, that is, they are a priori true. —Bruce Caldwell, *Beyond Positivism* (1982)

In a memorable and oft-quoted passage from *The Methodology of Economics* (1980, 93), Mark Blaug opined that Ludwig von Mises' "writings on the foundations of economic science are so cranky and idiosyncratic that we can only wonder that they have been taken seriously by anyone." Blaug immediately turned for additional support to no less an authority than Paul Samuelson (1972, 761; quoted in Blaug 1980, 93): "in connection with the exaggerated claims that used to be made in economics for the power of deduction and a priori reasoning – by [among others...] Ludwig von Mises – I tremble for the reputation of my subject." However, a number of prominent scholars of the Austrian School of economics (see, e.g., Machlup 1955, Koppl 2002, Leeson and Boettke 2006, Boettke 2015, Zanotti and Cachanosky 2015) have interpreted Mises' methodological apriorism as more "moderate" or "loose" than, as Blaug, Samuelson, and other critics of Mises would have it, "extreme," "radical," or "strict."<sup>1</sup> Why these inconsistent appraisals? How is it that some scholars have interpreted Mises' methodological pronouncements as those of an embarrassing-to-the-profession idiosyncratic crank while others have read these same statements as so uncontroversial as to approach the trivial?

There are several distinct dimensions along which the extremeness of a particular version of methodological apriorism might be evaluated. A methodology that appears only moderately aprioristic when appraised along one dimension might seem quite extreme when evaluated along another. For example, we might appraise the extremeness of a methodologist's apriorism along (at least) two distinct dimensions: (1) the *extent* of what the author takes to be a priori among the basic propositions of economic theory, i.e., the scope of "intuitively obvious axioms or principles that do not need to be independently established" (Blaug 1980, 265); and (2) the *epistemological justification* offered for the claim that such axioms need not be independently established.<sup>2</sup>

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<sup>1</sup> There are some – most famously, Murray Rothbard (1957) – who have embraced and defended the extremeness of Mises' apriorism, although, as we will see, not even Rothbard was as extreme as Mises on certain issues related to methodological apriorism. However, Gillis Maclean (1997) endorsed an apriorism that, with regard to the crucial issues raised in the present paper, was as extreme as Mises'.

<sup>2</sup> I do not pretend that these exhaust the possible dimensions along which the extremeness of a particular version of methodological apriorism might be appraised.

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Simply put, the extent dimension concerns *how much* is exempted from testing and the epistemological dimension concerns *why* it is exempted.

Naturally, more or less extreme positions are possible with respect to the extent dimension: the scope of what is held to be a priori may be more or less broad. Likewise, one's epistemological justification for exempting the relevant axioms from testing might be more or less extreme. For example, exempting such principles from testing either as a matter of methodological choice or convention, or because they are widely-accepted facts of everyday experience, or because they are merely hypothetical assumptions, are less extreme than, say, a justification according to which testing is superfluous because pure reason suffices by itself to deliver "apodictically certain" knowledge of the axioms, which could never, even in principle, be undermined by experience.

These are distinct dimensions of appraisal. A methodology that is extreme in the sense of asserting the a priori nature of a comparatively broad swath of the basic propositions of economics might yet be moderate in the sense of acknowledging the ultimate perviousness to experience of the relevant principles (while, say, maintaining a convention to not put them to test, perhaps only for the time being). Conversely, a methodology might moderately assert the a priori nature of only a narrow part of the foundation of economic theory while advancing an extreme epistemological justification for exempting the relevant principles from testing, say, that pure reason unaided by experience delivers apodictic certainty of their truth. Unfortunately, the significance of this distinction – and other, perhaps equally compelling, distinctions that could be made in the meta-methodological appraisal of methodologies – has rarely, if ever, been acknowledged in the extensive literature on Misesian apriorism.

The present paper is not concerned with evaluating Mises' apriorism as sound or otherwise. Although I confess to a deep skepticism about Mises' methodology, for the most part in what follows, I try to remain neutral concerning its *bona fides* or lack thereof. Instead, I aim to show that 1) there is something extreme about Mises' apriorism, namely, his epistemological justification of the a priori element(s) of economic theory; 2) his opponents have long recognized and criticized the extremeness of Mises' epistemological justification; and 3) some of his defenders have glossed or ignored what is (and what has long been recognized by his critics to be) extreme about Mises' apriorism. Thus, the argument is directed less against Mises than those contributions to the secondary literature that assert his methodological moderation while glossing or plainly ignoring what the most prominent critics have found extreme about Mises' apriorism.

Those who interpret Mises' methodology as moderate emphasize the limited extent of his apriorism; however, his critics have typically appraised Mises' apriorism along the epistemological dimension. Thus, defending Mises as a merely moderate apriorist because he held only a narrow part of the foundation of economics to be a priori is a straw-man defense against criticisms of his apriorism as epistemologically extreme. It does not suffice to establish Mises as a moderate apriorist to show that the scope of his apriorism was relatively limited; it is necessary to provide a plausible reading that makes his epistemological account of a priori knowledge less extreme than it appears. What is extreme about Mises' apriorism – and what has historically been interpreted as extreme about Mises' apriorism – is not the extent of what he exempts from testing, but his epistemological justification for exempting it, i.e., his seeming

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insistence that reflection on “inner experience” (introspection, intuition, or pure reason)<sup>3</sup> – without any contribution from the empirical world of (“outer”) experience – can deliver apodictically certain knowledge about that world.<sup>4</sup>

The question of the relative extremeness of Mises' apriorism is not some idle matter. It bears on both the history of the Austrian School, especially, on the reasons for its precipitous post-WWII decline in the esteem of the mainstream of the economics profession, and its viability moving forward. As the comments quoted above from Blaug and Samuelson indicate, the perception of Mises' methodological extremeness did the Austrian School few favors. If the School is to effectively compete in the marketplace of economic ideas in the future, the tactic adopted by too many of Mises's defenders – that of glossing or ignoring, rather than confronting head-on, his extreme epistemology – is likely a dead-end. The extremeness of Mises' methodological apriorism must, once and for all, be directly confronted, and either embraced and explained, or rejected and replaced.

### What Is Extreme about Mises' Extreme Apriorism

I am prepared to grant for the sake of argument to those who interpret Mises' apriorism as moderate that, if one focuses exclusively on the extent dimension, Mises may not have been a very extreme apriorist. The only element of praxeology that he explicitly claimed to be a priori was the so-called “action axiom” that *human action is purposeful behavior*. According to Mises, the procedure of economics 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” (Mises [1949] 1998, 64).<sup>5</sup> Beyond this single a priori element, Mises assigned to

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<sup>3</sup> I use these terms interchangeably throughout the present paper. None of the methodologists that I consider here explained what might be unique in their particular conceptions of introspection, intuition, pure reason, and reflection upon inner experience. As much as I would like to delineate the significance of these concepts as carefully as possible according to the ideas of the methodologists considered here, the material simply does not exist.

<sup>4</sup> The standard interpretation is that the epistemological foundations of Mises' *praxeology* – the science of human action “the best-developed part of” which is economics ([1949] 1998, 237) – lie in Kant's synthetic a priori (Hands 2001, 41). However, Schulak and Unterköfler (2011, 139) point out that Mises “did not agree with Kant's idealistic assumption that reality is a mere construction of the intellect. Mises, the realist and logician, could not accept the idealistic outlook—later adopted by constructivism—that thinking and reality are two separate worlds ... [According to Mises,] self-evident axioms, true, synthetic *a priori* judgments ... conform to reality.” This seems to be part of what Leeson and Boettke (2006, 256) have in mind when they claim that Mises “moves beyond” Kant. However, see Barrotta (1996), who argues that, if Mises meant his methodology to be read as Kantian, then he misunderstood Kant's epistemology. Kurrild-Klitgaard (2001, 127) and Koppl (2002, 33) question Mises' alleged Kantianism. In any case, whatever the truth may be with respect to Mises' comprehension and use of Kantian epistemology, my argument in the present paper does not hinge on any particular interpretation, Kantian or otherwise, of Mises' apriorism.

<sup>5</sup> The quote continues, subtly shifting from considerations of the extent of Mises' apriorism to his epistemology of a priori knowledge:

“It is a knowledge that is our own because we are men; no being of human descent that pathological conditions have not reduced to a merely vegetative existence lacks it. No special experience is needed in order to comprehend these theorems, and no experience, however rich, could disclose them to a being who did not know a priori what human action is. The only way to a cognition of these theorems is logical analysis of our inherent knowledge of the category of action. We must bethink ourselves and reflect upon the structure of human action. Like logic and mathematics, praxeological knowledge is in us; it does not come from without” (Mises [1949] 1998, 64).

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empirical assumptions a necessary role in the application of praxeology to real economic events.<sup>6</sup> As will be discussed at length below, several interpreters (Machlup 1955, Koppl 2002, Boettke 2015, Zanotti and Cachanosky 2015) have argued that this suffices to establish Mises as merely a moderate apriorist. However, in accusing Mises of extreme apriorism, his critics rarely (to my knowledge, never) based this accusation on whether Mises allowed that empirical assumptions are necessary to apply praxeology.<sup>7</sup> The chief concern of Mises' critics has always been his epistemology and not the extent of what he took to be a priori in economic theory. It is therefore no answer to these critics to argue that he indeed assigned a role to empirical premises in the derivation of economic explanations of real-world events. So, while I grant that, if what we mean by "extreme" apriorism is a denial of this role for empirical premises, there may have been methodological apriorists in the history of economic thought more extreme than Mises, I insist that this has rarely (if ever) been a relevant consideration in the many criticisms that have been leveled against Mises' methodology.<sup>8</sup>

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<sup>6</sup> Yet another dimension along which Mises' apriorism might be (and historically has been) appraised as extreme concerns what we might call the alleged "inferential breadth" of the action axiom, i.e., what, according to Mises, is deducible from the action axiom alone (see Caldwell 1984, 376; Hutchison 1938, Chapter 4 and 136-137; Hutchison 1981, 206-207 pushes the relevant point against Friedrich von Wieser's quasi-apriorism [regarding which see [pages 15-16](#) below]). As the quote in the text above indicates, Mises claimed (but didn't explicitly prove) that the category of action was a sufficient basis from which *all* of the theorems of praxeology could be deduced.

It is worth noting that, in the single instance that I am of aware of when the tools of modern mathematical logic were applied to one of Mises' claims to be able to deductively *prove* a particular economic proposition, Mises was confounded. In "Remarks on the Law of Diminishing Returns: A Study in Meta-Economics," Karl Menger ([1936] 1979, 279) showed that claims to prove the law of diminishing returns "from generally admitted propositions about value by deduction" often failed "to meet the requirements which logic places on a sequence of inferences intended to constitute a proof." According to Menger ([1936] 1979, 279), "Mises wrote me that he learned a great deal from the paper." However, there is no evidence that, in virtue of Menger's demonstration, Mises either tempered his claims for the inferential breadth of the action axiom or appreciated the need to formally deduce what he otherwise groundlessly asserted to be formally deducible. In the absence of formal proof, claims for the enormous inferential breadth of the action axiom should probably be treated with some circumspection.

<sup>7</sup> "It is perhaps best to begin by emphasizing what is *not* at issue...[P]raxeologists are not opposed to *all* empirical work and in fact recognize that in economics certain kinds of empirical work are indispensable" (Caldwell 1984, 371). Caldwell (1984, 376) later continues, "the addition of subsidiary, empirical hypotheses is necessary for the praxeological system to be applied to the 'real world.'"

<sup>8</sup> It has been suggested to me in conversation that the seeming extremeness of Mises' epistemology of a priori knowledge might be an artifact of mistranslation from the original German into the English versions most familiar to modern scholars. This may be so, yet a number of considerations tell against the exculpatory potential of this explanation. First, few have been more critical of Mises' apriorism than the late methodologist Terence Hutchison, who attacked Mises' apriorism first in his well-known (1938) *The Significance and Basic Postulates of Economic Theory* and at various points throughout his long career (see, e.g., Hutchison 1981, 207-210). Yet, Hutchison was a skilled user of the German language, who published original articles in German and translated a number of well-known economic writings from German into English. If Hutchison's bibliographical references can be relied upon, then his criticisms were based on his own translations of Mises' early German-language works rather than the published English (mis?)translations. Second, if Mises' methodological writings were mistranslated such that views came to be attributed to him that he did not in fact hold, then why did he apparently make no effort to correct these misimpressions? Mises died in 1973. His German-language methodological writings were published in English in 1949 (*Human Action* [Mises [1949] 1998], the English-language version of Mises' [1940] *Nationalökonomie*) and 1960 (*Epistemological Problems of Economics*, the English translation of Mises' [[1933] 2003] *Grundprobleme der Nationalökonomie*). Thus, there was plenty opportunity to address and correct whatever errors may have arisen in translation; and if the positions attributed to Mises in the translations were so far removed from his actual

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### *Reason without Experience*

I propose to evaluate the extremeness of an apriorist's epistemological justification according to two criteria. First, there is the respective methodologist's attitude toward what I will call the "Reason without Experience" thesis. According to this thesis, pure reason (inner experience, intuition, introspection, etc.) and *not contact with the external world* is the source of the economist's knowledge of the fundamental principles, axioms, etc., from which economic reasoning proceeds. A methodologist's position with regard to the Reason without Experience thesis indicates the extent to which, according to the relevant methodology, knowledge of the axioms is due to the pure, unadulterated – experientially-isolated – use of reason as opposed to experience.

Mises' defended an especially extreme position concerning this thesis. Indeed, he seemed to conceive of the economist's source of knowledge of the action axiom as entirely disconnected from the empirical world, as if the contents of what could be known via pure reason were in no way dependent upon the knower's (or her species') past contact with the environment.<sup>9</sup> For example, consider his claim that "[i]n all its branches this science [of human action, i.e., praxeology] is a priori, not empirical."

"Like logic and mathematics, it is not derived from experience; it is prior to experience. It is, as it were, the logic of action and deed...in the last analysis, logic and the universally valid science of human action are one and the same...[W]hat we know about our action under given conditions is derived not from experience, but from reason. What we know about the fundamental categories of action—action, economizing, preferring, the relationship of means and ends, and everything else that, together with these, constitutes the system of human action—is not derived from experience. We conceive all this from within, just as we conceive logical and mathematical truths, a priori, without reference to any experience. Nor could experience ever lead anyone to the knowledge of these things if he did not comprehend them from within himself" ([1933] 2003, 13-14).

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methodological ideas, one would have expected him to do so. Thus, it is hard to avoid one of two conclusions: either the English-language translations are essentially true to Mises' thoughts on methodology or he himself bears responsibility for failing to ensure that his actual methodological ideas, rather than erroneous misstatements, were made public.

<sup>9</sup> This statement is true only of Mises' earliest methodological writings, namely, those anthologized in *Epistemological Problems of Economics* ([1933] 2003). In various places in his later methodological writings, Mises seemed to interpret a priori knowledge as a product of biological evolution, which is to say, of an organism's (and its species') interactions with the environment, i.e., in some sense, of *experience* (see Mises [1949] 1998, 35 and 85–86, and, for a more forceful statement of the same idea, Mises 1962, 14–16). However, Mises never gave up the claim that experience is irrelevant to the acquisition of a priori knowledge (see e.g., Mises 1962, 18 and 72, and the quotation in [note 5](#) above from Mises [1949] 1998, 64). So, though Mises seemed to moderate his position on the Reason without Experience thesis, the result is incoherent: a priori knowledge cannot be both a product of evolution (and, therefore, of experience) and not a consequence of experience. The extent to which Mises' apriorism might be considered "fallibilistic" (see Leeson and Boettke 2006, 258) hinges on a coherent story of the evolution of a priori knowledge and this requires, at a minimum, rejection of the Reason without Experience thesis. In any case, the quasi-evolutionary explanation is absent from Mises' earliest methodological writings where one finds only the extreme claim that the economist's knowledge of human action is entirely unconnected from experience.



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Or, again, consider Mises' view that "we comprehend [praxeological] phenomena from within. Because we are human beings, we are in a position to grasp the meaning of human action, that is, the meaning that the actor has attached to his action. It is this comprehension of meaning that enables us to formulate the general principles by means of which we explain the phenomena of action" ([1933] 2003, 137-138).<sup>10</sup> Thus, Mises argued that knowledge of the action axiom is entirely due to reason; in this regard, experience is impotent. Indeed, praxeology is "one and the same" as logic.<sup>11</sup> The action axiom is "conceived" and "comprehended" *from within the knower*, who is able to conceive and comprehend such knowledge simply because she is human.

This is an extreme theory both of the source of knowledge of the fundamental axiom of economics and of its relation to the world of experience. Methodological apriorists need not be committed to it. Less extreme conceptions, according to which, say, either introspection and empirical observation combine to provide the economist with the premises of her arguments or what is introspected is in some way related to what has been experienced in the past, are both possible and, indeed, more common among apriorists than Mises' extreme conception.

In his 1826 introductory lecture at Oxford, Nassau Senior presented the first explicit statement and defense of methodological apriorism in economics. The extent of Senior's ([1826] 1827, 8; quoted in Bowley 1949, 43) apriorism was limited to "a very few general propositions," more precisely, to four propositions.<sup>12</sup> According to Senior's epistemological justification, our knowledge of these propositions is "the result of *observation or consciousness* ... almost every man, as soon as he hears them, admits [them] as familiar to his thoughts, or at least included in his previous knowledge" (Senior [1826] 1827, 8; quoted in Bowley 1936, 285; emphasis mine). Thus, Senior's attitude toward the Reason without Experience thesis was less extreme than Mises'. For Senior, the principles of economic theory are derived by observation *or* "consciousness" (by which Senior presumably meant something like introspection). Although he was silent about the relationship between experience and introspection, the reference to

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<sup>10</sup> Except to note that it contradicts everything that Mises wrote on the topic, I have no idea what to make of Israel Kirzner's (2001; quoted in Leeson and Boettke 2006, 248, fn2) claim that Mises "told him that the action axiom was derived from 'experience' as well."

<sup>11</sup> It is not clear *which* logic Mises believed to be identical with praxeology. In *Human Action* ([1949] 1998, 72-91), Mises rejected racial- and class-based relativizations of logic. Whatever might be said in favor of this argument, it does not suffice to rule out polylogism and establish monologism, as Mises seemed to believe it did. Oddly, apparently unbeknownst to Mises, by the time he presented this argument – thanks to people like Nikolai Vasiliev in Russia, L.E.J. Brouwer in Holland, Jan Lukasiewicz and Alfred Tarski in Poland, Emil Post in the United States, Hans Reichenbach in Germany, and Kurt Gödel and Karl Menger in Austria – the existence of multiple logics was a well-established empirical fact. Perhaps related to this apparent blind spot, Mises also failed to recognize that his insistence that the "character of the logical structure of the human mind" was "essential and necessary" sat, at best, very awkwardly with the newfound evolutionary epistemology of a priori knowledge presented for the first time in *Human Action* (see [note 9](#) above). The most that might be said, assuming this evolutionary epistemology, is that *given the actual course of human evolution*, the logical structure of the human mind could not be other than it is. However, there is nothing necessary about how humans have in fact evolved. Thus, *assuming Mises' (later) evolutionary epistemology of a priori knowledge*, the character of the logical structure of the human mind is variable and contingent. Caldwell (1984, 368) points to a similar blind spot in Mises' knowledge of disciplines about which he pronounced as if an expert: Mises' "examples utilizing Euclidean geometry ignore the well-known turning point in the intellectual history of mathematics when discovery of non-Euclidean geometry undercut the view that geometry begins from foundations which are certain and yet empirically meaningful[.]" i.e., Mises was seemingly unaware that mathematical progress had falsified Kant's assertion of the synthetic a priori nature of Euclidean geometry.

<sup>12</sup> See Blaug (1980, 59; quoted in Bowley 1949, 46-48).

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“observation or consciousness” as sources of knowledge of the principles of economic theory – assuming the inclusive meaning of “or” – would seem to indicate that, for Senior at least, what one is conscious of need not be exclusive of what one has observed. According to Marian Bowley (1936, 290), who wrote a wonderful essay (1936) and, later, a book (1949) on Senior's methodological contributions,

“The first two [of Senior's four general] propositions are thus based primarily on principles of human nature, and the last two on general empirical observation. Senior's general attitude to method... was that theoretical economics is a deductive science based on a group of premises which cover the main data relevant to the specific objects of the science, and which are *drawn from the real world by consciousness and observation*” (emphasis mine).

Thus, if Bowley's interpretation is correct, whatever Senior meant by “consciousness” is ultimately a consequence of the knower's confrontations with the world. Senior did not explicitly decouple inner from outer experience, as did Mises.

Bowley (1936, 305) is clear that what separates Senior from Mises are their respective epistemologies of the premises of economic theory:

“Professor Mises argues that economic analysis must proceed from positive premises which are complete, in the sense of complete used throughout this paper, and that the essential premise is the recognised characteristic of man to truck and barter... From this one fundamental characteristic all the general concepts of economics which are relevant to the formulation of general laws are derived. Clearly this is the same approach as Senior's... but differs in regard to the nature of that premise itself... The only fundamental difference between Mises' attitude and Senior's lies in Mises' apparent denial of the possibility of using any general empirical data, i.e. facts of general observation, as initial premises. This difference, however, turns upon Mises' general ideas of the nature of thought, and though of general philosophical importance, has little special relevance to economic method as such.”

That is, Bowley sees no grounds for distinguishing Senior from Mises in terms of the *extent* of their respective apriorisms. If the methodologies of Senior and Mises are distinguishable, it is in terms of their respective epistemologies of the fundamental principles of economics.

As might be expected from an otherwise thoroughgoing empiricist, John Stuart Mill (who, in terms of economic methodology, is typically counted an apriorist of a sort<sup>13</sup>) made no

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<sup>13</sup> Or, as Blaug (1980) described Mill (and others), a “verificationist.” Blaug's *The Methodology of Economics* is concerned with a defense of falsificationist methodology in economics. Blaug portrays verificationists as the natural opponents of falsificationists; his description of verificationists explicates their affinity for aprioristic reasoning:

“The great British nineteenth-century economic methodologists focused attention on the premises of economic theory and continually warned their readers that the verification of economic predictions was at best a hazardous enterprise. *The premises were said to be derived from introspection or the casual observation of one's neighbors and in this sense constituted a priori truths, known, so to speak, in advance of experience*; a purely deductive process led from premises to implications [i.e., predictions]... The ingenuity of these nineteenth-century writers knew no bounds when it came to giving reasons for ignoring

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exaggerated claims for the powers of pure reason.<sup>14</sup> Given the complexity and multiplicity of human motivations and ways of economic life, Mill argued that the economist must abstract from all niggling influences and proceed from the *hypothesis* that “man is a being who is determined, by the necessity of his nature, to prefer a greater portion of wealth to a smaller in all cases, without any other exception than that constituted by” “aversion to labour, and desire of the present enjoyment of costly indulgences” (Mill 1967, 321; quoted in Blaug 1980, 60).<sup>15</sup>

This “economic man” premise is simply assumed because “of all hypotheses equally simple, [it] is the nearest to the truth” (Mill 1967, 322; quoted in Blaug 1980, 61).<sup>16</sup> “The hypothesis of economic man...is grounded on a kind of experience, namely, introspection and the observation of fellow men, but it is not derived from specific observations or concrete events.” (Blaug 1980, 63; Mill 1967, 325-6; emphasis mine). Thus, there is no suggestion in Mill that reason *unaided by contact with the world of experience* is the source of the economist's knowledge of the premises of economic reasoning. Mill was not an extremist with respect to the Reason without Experience thesis.

Mill's follower, John Elliot Cairnes, also conceived of inner experience as connected in some way to outer experience. “[T]he ultimate principles of Political Economy [are established]...by direct appeals to *our consciousness or to our senses*” (Cairnes 1965, 202-203; quoted in Blaug 1980, 81; emphasis mine). As Blaug (1980, 78) puts it (quoting Cairnes 1965, 95), the premises are “drawn from observations of which we have ‘direct and easy proof’.” Thus, relative to Mises, Cairnes held a moderate position concerning the Reason without Experience thesis

In *The Scope and Method of Political Economy* ([1891] 1955), John Neville Keynes explicitly sought to bridge the divide between his classical predecessors of the deductivist persuasion and the emerging inductivist-historicist approach. Nonetheless, according to Blaug (1980, 82), “his book reveals a subtly disguised attempt to vindicate the abstract-deductive method[,]” i.e., apriorism. Whatever may be the case in this regard, part of Keynes' project, Blaug (1980, 82; emphasis mine) acknowledged, was to emphasize “the fact that even the a priori method of classical political economy *begins and ends with empirical observations.*”<sup>17</sup> Thus, Keynes held a relatively moderate position on the Reason without Experience thesis.

In his famous *Essay on the Nature and Significance of Economic Science* (1932, [1932] 1935), Lionel Robbins offered a relatively extreme statement of methodological apriorism. As is

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apparent refutations of an economic prediction, but no grounds, empirical or otherwise, were ever stated in terms of which one might reject a particular economic theory. In short, [these methodologists] were *verificationists*, not *falsificationists*, and they preached a *defensive methodology* designed to make the young science secure against any and all attacks” (Blaug 1980, 55; italics in the original).

<sup>14</sup> With respect to those apriorists (or “ultra-deductivists”) considered by Hutchison (1998, 48), i.e., “Senior, Cairnes, Robbins, [and] Mises[,]” Mill was “in several respects more empirical than” the others.

<sup>15</sup> Deductions from this fundamental premise are, at best, “approximations” that must “be corrected by making proper allowance for the effects of any impulses of a different description, which can be shown to interfere with the result in any particular case” (Mill 1967, 321-3; quoted in Blaug 1980, 61). Thus, the accuracy of implications derived from economic arguments depends not only on the veracity of the fundamental causal premise(s), but on the economist's ability to discover any and all relevant disturbing causes.

<sup>16</sup> According to Hausman (1992, 92-3; quoted in Hutchison 1998, 49), for Mill (and Lionel Robbins), the propositions stating the fundamental causal factors of economics are “platitudes.”

<sup>17</sup> For Keynes ([1891] 1955, 173, 223) introspection is an “empirically grounded source of economic premises” (Blaug 1980, 84).

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well known, Mises had some, perhaps considerable, influence on the development of Robbins' methodological ideas. Indeed, Robbins (1932) singles out Mises along with Philip Wicksteed (whose *Political Economy* [1910] Blaug [1980, 87] describes as "an earlier attempt to import Austrian ideas into British economics") in the book's Preface for his "especial indebtedness" to them. Nonetheless, whatever the nature and significance of Mises' influence, Robbins staked a position to the moderate side of Mises with regard to the Reason without Experience thesis.<sup>18</sup> According to Robbins (1932, 96-97; emphasis mine), "[t]he scarcity of goods and services, which is the fundamental assumption of the system of deductive generalisations" called economic theory "is a known fact both of introspection and of observation."

Mises held a position concerning the unempirical nature of the source of the economist's knowledge of the fundamental axiom of economics more extreme than any other prominent apriorist in the history of economic thought.<sup>19</sup> Unlike other apriorists, Mises insisted that the economist acquired this knowledge simply in virtue of being human. "[N]o experience, however rich, could disclose [this knowledge] to a being who did not know a priori what human action is" (Mises [1949] 1998, 64). Thus, we have found one comparatively extreme element in Mises' apriorism. In the next sub-section, we will discover another.

### *Greater Certainty*

The second criterion I propose to evaluate the extremeness of an epistemological justification concerns the respective methodologist's attitude toward what I will call the "Greater Certainty" thesis. According to this thesis, the social scientist begins her inquiry in a privileged epistemic position relative to the physical scientist. The social scientist purportedly starts with introspection (or whatever process of perhaps only partially internal reflection is available to the social scientist) and is thereby delivered knowledge of the premises of social-scientific explanations (the *explanans*, if you will). From these introspected premises, (perhaps) in conjunction with various empirical subsidiary assumptions, a conclusion (an *explanandum*) is deduced that explains the relevant phenomena. The physical scientist is supposed to work in the opposite direction. She starts with empirical observation and thereby acquires knowledge of the *explanandum*. Then, after a (perhaps long and time-consuming) experimental process, she uncovers the *explanans* necessary and sufficient to cause the relevant phenomena. Thus, what the Greater Certainty thesis asserts, precisely, is that reason delivers more secure knowledge of her *explanans* to the social scientist than experiment, testing, etc., provides to the physical scientist.<sup>20</sup>

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<sup>18</sup> Also see Caldwell (1982, 104-105).

<sup>19</sup> "[N]either Robbins nor the nineteenth century economists who made methodological contributions were really anxious to determine whether the fairly evident postulates of economics were established through some kind of experience or otherwise. They tended to think that the content of these postulates does not concern a specifically economic zone of human behavior and, remaining relatively neutral about the precise nature of the knowledge we have of this zone, they tended to concentrate on the subsequent steps of economic analysis which, by contrast, concern specifically economic matters...It is mainly with some members of the Austrian school of economics, and more specifically with Ludwig von Mises, however, that we meet a thoroughgoing apriorist theory of economics." (Lagueux 1998, 19).

<sup>20</sup> It is hard to avoid the conclusion that those who defend the Greater Certainty thesis, as Mises did in an especially extreme way, conflate two distinct matters that need to be kept separate, namely, the relative *ease and convenience* of the social scientist's source of knowledge of the fundamental principles and the *certainty or security* of what this source delivers. It is probably true that pure reason (introspection, intuition, reflection on inner experience) is an easier and certainly less time-consuming process than controlled experiment, hypothesis testing, etc. in the physical

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More or less extreme attitudes are of course possible with respect to the Greater Certainty thesis. Indeed, several apriorists in the history of economic thought have either denied altogether that the social scientist is epistemically privileged relative to her counterparts in the physical sciences or, at least, have remained agnostic on the matter. At the opposite extreme, one might go all the way with Mises, who seemed to insist, not merely that the introspected postulates of the social scientist were *more* secure than knowledge delivered via the methods of the physical sciences, but that the deliverances of the social scientist's reason were *maximally* secure: apodictically certain.

Mises (in)famously claimed that theorems validly deduced from the action axiom are "*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*" ([1949] 1998, 39-40; emphasis mine). If the theorems of praxeology are apodictically certain when validly deduced from the action axiom, then the axiom itself is perfectly certain and incontestable as well. Since the social scientist can build her theories from an apodictically certain axiom immediately accessible via her rational faculties, whereas the physical scientist must wait on a comparatively time-consuming and ever error-prone process of experimentation, according to Mises' epistemology, the social scientist starts from an epistemic position not merely *better* than the physical scientist, but occupies a position with respect to the fundamental principles of her discipline approaching that of an Olympian God. It is a simple thing to show that no other apriorist in the history of economic thought maintained a position as extreme as Mises' with regard to the Greater Certainty thesis.

Nassau Senior, it seems, would have rejected the thesis altogether. This is clear in Senior's later methodological writings where he clarified his views on the differences between the physical and "mental" sciences:

"The physical sciences, being only secondarily conversant with the mind draw their premises almost exclusively from observation or hypothesis. Those which treat only of magnitude or number, or, as they are mainly called, the pure sciences, draw them entirely from hypothesis...those which abstain from hypothesis depend on observation, e.g. astronomy and chemistry...

On the other hand, the mental sciences...draw their premises principally from consciousness. The subjects with which they are chiefly conversant are the workings of the human mind, and *the only workings a man really knows are his own*" (Senior 1852, 25; quoted in Bowley 1936, 297; emphasis mine).

That the mental sciences derive their premises primarily from consciousness is, according to Senior, a consequence of the experimental limitations of these fields as compared to the natural sciences (Bowley 1936, 298). Senior is clear that knowledge of one's own mind does not put the economist in an especially enviable position with respect to knowledge of other minds: "The difficulty is the vital one of justifying the interpretation of the workings of other people's minds

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sciences. However, it has never been explained by any of the defenders of the Greater Certainty thesis why this relative ease and convenience should entail that the economist's introspected knowledge is also more *certain* than the results of controlled experiment. It is easier to find fool's gold than the real stuff, but this doesn't make pyrite more valuable than, or turn it into, gold.

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in terms of one's own" (Bowley 1936, 297): "The mental peculiarities of other men are likely to lead him astray in particular instances. His own mental peculiarities are likely to lead him astray on all occasions" (Senior 1852, 2; quoted in Bowley 1936, 298). This difficulty is only partially ameliorated by the possibility of conducting thought experiments on our own minds (Senior 1852, 31). Senior assigned no greater security – surely, no apodictic certainty – to social scientists' powers of "observation or consciousness," and in fact emphasized the difficulties of sound reasoning from one's consciousness alone. Thus, there is little reason to suspect that, for Senior, the economist is in a uniquely enviable epistemic position relative to natural scientists.

Far from asserting any privileged certainty, John Stuart Mill, like Senior, emphasized the limitations of the economist's knowledge.<sup>21</sup> Since the *Homo economicus* "hypothesis is an assumption, it might be totally 'without foundation in fact'" (Blaug 1980, 63; Mill 1967, 325-6). Indeed, as Blaug (1980, 62) notes, Mill's economic man is ultimately a "fictional man," albeit one that Mill thought less fictional and far simpler than rival conceptions of human motivation upon which economic reasoning might otherwise be based. Thus, there is no suggestion in Mill that the social scientist's epistemic capacities are uniquely powerful as compared to those of physical scientists. Mill was not an extremist with respect to the Greater Certainty thesis.

However, John Elliot Cairnes expressed a more extreme attitude with respect to the degree of certainty imparted by introspection to the basic propositions of economics. The premises of political economy are more than mere hypothetical assumptions, according to Cairnes (1965, 68; quoted in Blaug 1980, 78), but "indubitable facts of human nature and of the world." As Blaug (1980, 78) notes, this means that, for Cairnes, the economist is "at an advantage compared to" physical scientists: "*The economist starts with a knowledge of ultimate causes. He is already at the outset of his enterprise, in the position which the physicist only obtains after ages of laborious research*" (Cairnes 1965, 87; quoted in Blaug 1980, 78; italics in the original).<sup>22</sup> Hutchison (1998, 51) makes the same point: "Cairnes was the most emphatic

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<sup>21</sup> Both Mill and Mises

"admit that the laws of economics can be *verified* by facts in the most favourable cases, but emphasize that they cannot be falsified by any factual observation which would be contrary to theoretical expectations. However, their arguments for rejecting this possibility are different. Mill's main argument is the incompleteness of the set of laws under consideration. According to him, there is no reason to conclude that observation-based laws are contradicted by any facts, since those facts are susceptible to being explained by other (unknown) causes which interfere with the laws in question. Mises' essential argument, on the other hand, is the fact that the laws under consideration have been established a priori and are therefore 'universally valid'. Thus, Mises claims that ... 'praxeological knowledge is in us; it does not come from without'" (Lagueux 1998, 19-20).

Simply put, for Mill, falsification of the fundamental assumption of economics is *impossible* because of the economist's *ignorance*; for Mises, attempts to falsify the action axiom are *inconsequential* because of the economist's *certainty*.

<sup>22</sup> See [note 20](#) above. Cairnes conflates the relative *ease* of introspection as compared to the "laborious" research methods of the physical sciences with the relative *certainty* of what these distinct methods deliver. The notion that, since introspection is easier and more convenient than controlled experimentation, it must also be more certain, is a non-sequitur. Similarly, against claims such as those made, e.g., in Leeson and Boettke (2006, 253-254), it does not follow from the fact that the social-scientific observer has a human mind that she is, in any sense, nearer to or "inside" the minds of her objects of inquiry; nor would it follow, if the social scientist were "inside" her objects' minds, that she would necessarily understand what she found there any better than a physical scientist who, after

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exponent of one of the main doctrines of ultra-deductivism, which provided, in fact, much of its somewhat pretentiously apriorist and dogmatic quality...[according to which was claimed] greater certainty for propositions arrived at by introspection; which were held to provide a more secure foundation for economic theory than was available to the natural sciences" (Hutchison 1998, 51). Thus, Cairnes expressed a comparatively extreme attitude toward the Greater Certainty thesis. However, Mises' attitude on this question appears even more extreme than Cairnes', who, at least, made no claims of apodictic certainty for the economist's introspections.

Given what was said above concerning Neville Keynes' desire to establish that "even the a priori method of classical political economy *begins and ends with empirical observations*," there is no reason to suspect that he would have assented to the Greater Certainty thesis. Indeed, Keynes could not have consistently maintained that both economics and (presumably, for Keynes) the physical sciences begin and end with empirical observations, and also that economists are epistemically privileged relative to physical scientists. If all sciences are empirical, then no science is uniquely advantaged epistemically.

However, having argued for introspection and observation as the sources of the economist's knowledge of the fundamental premise(s) of economic theory, Lionel Robbins (1932, 96-97) advanced a comparatively extreme view of the security of this knowledge. "[O]n the basis of this knowledge," he argued, "we may assert the applicability of the abstract deductions from the concept of scarcity to the actual condition of the world in which we live. Any suggestion that this is not so rests upon the most palpable failure to observe elementary facts." Moreover, Robbins (1932, 97) continued, in the absence of countervailing evidence, we can safely assume that the "empirical accident" of scarcity will continue in the future. For more detail concerning Robbins' attitude toward the Greater Certainty thesis, it is necessary to turn to the second edition ([1932] 1935) of his *Essay*, which, it is often said (Lagueux 1998, 19), presents a less extreme version of Robbins' methodological thought than the first edition (1932). What we find in the second edition is a position concerning the Greater Certainty thesis similar to Cairnes': though he avoids Misesian assertions of the apodictic certainty of the economist's knowledge, Robbins ([1932] 1935, 105; quoted in Blaug 1980, 88) does insist that "[i]n Economics...the ultimate constituents of our fundamental generalisations are known to us by immediate acquaintance. In the natural sciences they are known only inferentially. There is much less reason to doubt the counterpart in reality of the assumption of individual preferences than that of the assumption of the electron."<sup>23</sup>

Cairnes, Robbins, and Mises all assented to the Greater Certainty thesis. However, only Mises insisted that the economist's knowledge was maximally secure, i.e., "apodictically certain." Mises's attitude toward the power of the economist's source of knowledge was more extreme than any other prominent apriorist in the history of economic thought. Thus, we have

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"repeatedly observing [her] object of inquiry externally under varying conditions," would understand her object. Error is always possible, whatever we are observing, from whatever perspective.

<sup>23</sup> See [notes 20 and 22](#) above. Again, this is a non-sequitur from the relative ease and convenience of "immediate acquaintance" as compared to the inferential processes of the physical sciences to its greater certainty. Is there *now* – nearly 125 years after J.J. Thomson's discovery of electrons – *far more reason* to doubt electrons than individual preferences? If not – if the respective epistemic processes of the social and physical sciences ultimately deliver knowledge of more or less the same degree of certainty, albeit only with greater effort and some considerable delay in the physical disciplines – then the inference from the relative ease, convenience, and speed of introspection to its greater certainty is unfounded.

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uncovered a second comparatively extreme element in Mises' apriorism. In the next section, I show that the Reason without Experience and Greater Certainty criteria are not of my invention, but have long figured in criticisms of Mises' methodological apriorism.

### What Has Historically Been Deemed Extreme about Mises' Extreme Apriorism<sup>24</sup>

Blaug's conclusion of Mises' methodological crankiness did not appear *ex nihilo*, but came at the end of an extended analysis of several of the more well-known apriorists (or "verificationists") in the history of economic thought. Thus, it was by way of explicit comparison with his methodological predecessors that Blaug described Mises as "cranky and idiosyncratic."

Moreover, Blaug – who never so much as gestured toward a problem with the *extent* of Mises' apriorism – based this claim on his assessment of the extremeness of Mises' epistemology.

A page before asserting Mises' crankiness and idiosyncrasy, Blaug (1980, 92) noted that, with regard to the epistemological dimension, Mises was on the extreme flank of various *avowed* apriorist predecessors in the history of economic thought:

“[A] small group of latter-day Austrian economists have returned to a *more extreme version of the Senior-Mill-Cairnes tradition*...[A] direct inspiration was Mises' *Human Action: A Treatise on Economics* with its statement of *praxeology*, the general theory of rational action, according to which the assumption of purposeful individual action is an absolute prerequisite for explaining all behavior, including economic behavior, constituting indeed a *synthetic a priori principle that speaks for itself*. Mises's statements of radical apriorism are so uncompromising that they have to be read to be believed[.]” (emphasis mine)

Blaug (1980, 92) then quoted Mises in *Human Action* ([1949] 1998, 858): “What assigns economics its peculiar and unique position in the orbit of pure knowledge and of the practical utilization of knowledge is the fact that its particular theorems are not open to any verification or falsification on the ground of experience ... the ultimate yardstick of an economic theorem's correctness or incorrectness is *solely reason unaided by experience*” (emphasis added). Blaug concluded, “[a]lthough all this is said to be a continuation of Senior, Mill, and Cairnes, the notion that even the verification of assumptions is unnecessary in economics is, as we have seen, a travesty and not a restatement of classical methodology.” (Blaug 1980, 92). In other words, whatever their pronouncements about the need to verify only the implications of economic theory, the classical economists did not assert the complete imperviousness of their assumptions to experience, as Mises did. The latter-day Austrian, Mises-inspired, methodology was, for Blaug, more extreme than previous versions of apriorism and – more to the point – more extreme for the claim (in effect, the Greater Certainty thesis) that testing the action axiom is unwarranted because action is *everywhere*, universal, “an absolute prerequisite for explaining all behavior.” Blaug also emphasized the extremeness of the claim (the Reason without Experience thesis) that individual action “speaks for itself,” i.e., that the action axiom and theorems validly deduced

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<sup>24</sup> I make no effort here to comprehensively catalog all of the various criticisms that have been leveled against Mises' methodology. It suffices for my purposes to establish that the extremeness of Mises' positions with regard to the Reason without Experience and Greater Certainty theses have figured in the critical literature.



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from it are known entirely by “reason unaided by experience.” In short, Blaug criticized the extremeness of Mises' epistemological justification.

The most persistent and longstanding critic of Mises' apriorism was Terence Hutchison. Beginning with his well-known book *The Significance and Basic Postulates of Economics* (1938), Hutchison attacked Mises' methodology on several occasions over the course of his long career. Hutchison offered perhaps the clearest statement of his complaints against Misesian apriorism in *The Politics and Philosophy of Economics: Marxians, Keynesians, and Austrians* (1981).<sup>25</sup> Hutchison (1981, 225, fn4) explicitly emphasized the relative extremeness of Mises' epistemology of a priori knowledge:

“Three different versions can be identified of the long-standing, classical and neo-classical conception of the subject as entirely, or almost entirely, deductive [i.e., a priori], based on a very few basic postulates.<sup>26</sup> According to (1) these very few postulates, though obvious to elementary common sense, are not necessarily derived from introspection, but ‘from observation or consciousness’ (Senior). According to (2) these postulates are derived from introspection, and are endowed thereby with much greater certainty than can be obtained in the natural sciences, thus giving the social sciences a great advantage. But, at the same time, these postulates remain in some sense or other ‘empirical’ ([second-generation Austrian economist Friedrich von] Wieser). According to (3) these

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<sup>25</sup> Not that it could make a difference to the veracity of his objections, let it be said from the outset that there is no evidence that Hutchison's criticisms of Mises were especially motivated by an ideological aversion to Mises' political liberalism, as has been suggested to me in conversation. Indeed, Hutchison was a self-described libertarian. See Caldwell 2009, which includes a passage from a letter written by Hutchison to Bruce Caldwell dated May 15, 1983: “I...believe that my political values, *or a thorough-going libertarianism*, require a fallibilist, anti-dogmatic methodology, or epistemology. This is an essential component of Popperian falsificationism which provides the necessary philosophical basis for opposing dogmatic infallibilism (‘apodictic certainties’ etc. etc.)” (emphasis mine). This claim is bolstered by Hutchison's comments in *The Politics and Philosophy of Economics* where he attacks Mises' apriorism as a kind of methodological totalitarianism or authoritarianism far removed from a methodology consistent with, much less supportive of, political liberalism:

“[C]laims to establish *a priori* judgments of ‘apodictic certainty’...together with comprehensive denunciations as ‘Positivist’ and ‘Empiricist’ of the criteria of testability and falsifiability, may serve to support infallibilist, authoritarian and anti-libertarian attitudes and to play into the hands of the enemies of freedom...[T]he more highly one esteems what may be regarded as the essential Austrian message of individualism and subjectivism, the more desirable it should seem that its philosophical and epistemological foundations should be soundly and consistently formulated. The Austrians, with their concern for individualism, subjectivism and liberty possess a general message ultimately more valid and valuable than the Keynesians and the Marxians. But it is important that their methodology, or epistemology, should be clearly, logically and explicitly compatible with their political principles. As well as its ethics, politics, and economics, freedom has its epistemology, which must surely be one of its most fundamental aspects and requirements” (1981, 223-224).

Contra Boettke (2015, 81), Hutchison's targets were not primarily political, but methodological. True, Hutchison opposed “doctrinaire *laissez-faire*,” as well as communism and fascism, *for their unfalsifiable claims*, but not for their political implications *per se*. As the foregoing block quotation shows, what Hutchison wanted, and what he insisted apriorism could not deliver, was an epistemologically respectable liberalism or libertarianism.

<sup>26</sup> Notice that this “entirely, or almost entirely” concerns the *extent* of various apriorisms. Thus, Hutchison distinguishes the extent and epistemological dimensions, and specifically emphasizes the extremeness of Mises' epistemological position.

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postulates consist of a priori judgements, of 'apodictic certainty', which they bestow on the conclusions deduced from them, though these are not analytic or tautological (Mises)."<sup>27</sup>

Notice that Hutchison distinguished the extremeness of a methodologist's account of the source(s) of economic knowledge (i.e., the methodologist's attitude toward the Reason without Experience thesis) and the degree of certainty that, according to the respective methodologist, these sources impart to propositions so derived (the methodologist's attitude toward the Greater Certainty thesis), and named Mises as defender of the most extreme versions of both theses. Against the Greater Certainty thesis, Hutchison (1938, 132-133) wrote, "it is curious and a pity that this huge start [that the economist allegedly possesses over the natural scientist] has not enabled him to formulate any considerable body of reliable prognoses such as the natural sciences have managed to achieve. Even so, it could be argued that the propositions which this...method affords us possess a necessary, certain, and a priori character which those of the natural sciences can never attain to. But it is strange, again, that psychologists and sociologists do not appear to have any inkling of this secret or make any such claims for their propositions."<sup>28</sup>

Even Mises' fellow Austrian, Wieser, who defended a position with respect to the Greater Certainty thesis that approached Misesian degrees of extremeness, was a relative moderate concerning the Reason without Experience thesis:<sup>29</sup> although derived from introspection and well-nigh infallible, for Wieser, the postulates of economics are nevertheless empirical.<sup>30</sup> Thus, even Wieser's comparatively extreme epistemology is outdone by Mises': Wieser, at least, attributed to experience some part of our knowledge of what Mises credited to pure reason.

Epistemological criticisms of Mises' apriorism were not limited to his intellectual opponents. Indeed, the person probably most closely associated with Mises in the public and professional imagination issued several (albeit informal) criticisms of Mises' epistemology.

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<sup>27</sup> Hutchison never complained against the use of introspection. Indeed, Hutchison (1938, 137-143) accepted the legitimacy of introspection in economics. What he rejected were the twin notions that introspection is disconnected from the world of experience, i.e., the Reason without Experience thesis (see Hutchison 1938, 131-132) and the Greater Certainty thesis that introspection somehow provides a more secure source of knowledge than "outer experience" (see, e.g., Hutchison 1938, 132-133; 1998, 74n). In other words, Hutchison objected to Mises' epistemology of a priori knowledge.

<sup>28</sup> Also see Hutchison (1938, 142): "We may mention...that modern psychologists appear particularly to warn against peoples' own too facile accounts and explanations of themselves as being infected with self-justifying 'rationalisations'." In other words, no psychologist assigns to introspection a capacity to deliver apodictically certain knowledge about even the mental elements of the *Milieu intérieur*, much less about whatever might be external to the mind.

<sup>29</sup> With regard to the Greater Certainty thesis, Wieser (1929, 8; quoted in Hutchison 1981) wrote that "[f]or all actions which are accompanied by a consciousness of necessity, economic theory need never strive to establish a law in a long series of inductions. In these cases we, each of us, hear the law pronounced by an unmistakable inner voice." Assurances aside concerning "consciousness of necessity" and the unmistakability of one's "inner voice," it is clear that Wieser, like other defenders of the Greater Certainty thesis, conflated the relative trouble of induction as compared to the ease of listening to one's inner voice with the degree of certainty delivered by the two methods.

<sup>30</sup> For Wieser, "political economy is based on a few fundamental assumptions which should not only be regarded as self-evident and beyond dispute, but which also possess sufficient content to yield, by deduction, an array of significant conclusions. Moreover, Wieser ascribes a kind of inner necessity to these propositions. But he insists that these assumptions are, and must be, 'empirical', and he rejects any suggestion of apriorism" (Hutchison 1981, 205).

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Though he never wrote a comprehensive critique, F.A. Hayek emphasized the distance between he and his former mentor on matters epistemological.<sup>31</sup> In a sense unique to his own epistemology, Hayek accepted that microeconomics or the “Pure Logic of Choice” could be a priori, but – unlike Mises’ rationalist epistemology – Hayek’s radically empiricist epistemology implies denials of both the Reason without Experience and Greater Certainty theses.<sup>32</sup>

Hayek was sensitive about criticizing his mentor, who tended to respond poorly to negative comments from his juniors, while Mises was still alive. So, Hayek’s various comments on Mises’ epistemology are typically more conciliatory earlier rather than later, especially, after Mises passed in 1973. Nor was Hayek, in his earlier comments, immune from the tendency prevalent among some Austrians (to be explored in more depth in the next section) to gloss the apparent extremeness of Mises’ extreme epistemology. For example, in his review of Mises’ ([1933] 2003) *Epistemological Problems of Economics*, Hayek ([1964] 1992) asserted, without offering a defense of the claim, that Mises’ “emphasis on the a priori character of theory sometimes gives the impression of a more extreme position than the author in fact holds.” Indeed, Hayek immediately proceeded to claim that the distance separating Mises from Karl Popper’s “‘hypothetico-deductive’ interpretation of theoretical science” was “comparatively small,” an assertion that Peter Klein, editor of the relevant volume of Hayek’s *Collected Works* quickly swatted away: “Mises himself would probably not agree with this statement” (Hayek [1964] 1992, 148, fn73). In his review of Mises’ (1940) *Nationalökonomie*, Hayek ([1941] 1992) merely indicated that, as far as describing economic theory as a priori, he “would put...things differently.” In his introduction to the German-language version of Mises’ posthumously published *Notes and Recollections* (1978), perhaps because the forum was inappropriate for criticism of a treasured and still recently-deceased friend, Hayek again partially exonerated the extremeness of Mises’ apriorism on the grounds that “considering the kind of battle he had to lead [against historicists, socialists, positivists, etc.], I...understand that he was driven to certain exaggerations, like that of the a priori character of economic theory, where I could not follow him (Hayek [1988] 1992, 158; emphasis mine).

However, in other places, especially after Mises’ death, Hayek was more effusive concerning their epistemological differences. In 1978, Hayek was the subject of a series of interviews conducted by a number of academic luminaries such as James Buchanan, Robert Bork, and Armen Alchian. In response to a question posed by Axel Leijonhufvud, “You would not share his [Mises’] reliance on introspection?” Hayek responded, “Well, up to a point, yes, but in a much less intellectual sense. You see, I am neither a utilitarian nor a rationalist in the sense in which Mises was. And *his introspection is, of course, essentially a rationalist introspection*” (Hayek 1978a, 58). In other words, Hayek did not reject introspection, but conceived of it differently than did Mises; in particular, for Hayek, introspection is not “intellectual” or “rationalist”—it is not disconnected from experience. Elsewhere in the same series of interviews, in response to a question from humorist and screenwriter Leo Rosten, Hayek again emphasized

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<sup>31</sup> There are no grounds for the claims (see Hutchison 1981, 210-214) that Hayek was ever a Misesian apriorist or that his writings indicate a mid-career *volte face* on matters methodological: see Caldwell (1988, 1992a, 1992b, and 2004) and my (2015) “Hayek the Apriorist?”

<sup>32</sup> Regarding Hayek’s attitude toward the Greater Certainty thesis (a phrase I do not use in the cited paper), see my (2015) “Hayek the Apriorist?” esp. 106-107.

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that he “never could accept the...almost eighteenth-century rationalism in his [Mises'] argument” (Hayek 1978b, 137).<sup>33</sup>

Two of the most prominent methodologists of the last century offered markedly similar criticisms of Mises' apriorism. Both Blaug and Hutchison attacked Mises for the extremeness of his epistemological justification of methodological apriorism. More exactly, both Blaug and Hutchison criticized Mises for his positions concerning pure reason as the source of the economist's knowledge of the action axiom and the alleged “apodictic certainty” imparted by pure reason to this axiom, and theorems deduced from it. Closer to home, Hayek offered similar criticisms of Mises' extreme apriorism. Moreover, one scours the writings of Mises's critics in vain for any objection to (what I described above as) the *extent* or *scope* of Mises' apriorism.<sup>34</sup> Mises' epistemological justification and not the extent of his apriorism has always been the prime consideration motivating the criticisms offered by Mises' opponents. If this is right, then any attempt to interpret Mises as *not* extreme, as a moderate apriorist, on the grounds of the limited extent of his apriorism while glossing, or ignoring, the extremeness of his epistemological justification is a straw-man defense.

### **Mises Was Neither a Proto-Lakatosian nor a Proto-Quinean (He Was an Extreme Apriorist)**

Several authors have argued that Mises was merely a “moderate” apriorist. However, these authors tend to either ignore or gloss, and ultimately stake their defenses on considerations irrelevant to, the criticisms of Mises' extreme epistemology discussed in the previous section. In particular, these authors argue that Mises was not an extreme apriorist because the extent of his apriorism was less than absolute: the fact that he accorded a role for empirical assumptions in the application of economic theory, it is alleged, suffices to mark Mises merely a moderate apriorist. However, as we have seen, the scorn of Mises' critics was directed primarily at his epistemology, especially (what I am calling) the Reason without Experience and Greater Certainty theses, and not the extent of his apriorism. These defenders of Mises as a moderate apriorist defend a straw man.

Consider Zanotti and Cachanosky (2015, 111-112), who have recently argued that “Mises was not an extreme aprioristic thinker” on the grounds that Fritz Machlup's (1955) interpretation of Mises as a moderate apriorist is “at least as, if not more, plausible than” Murray Rothbard's (1957) interpretation of Mises as an extreme apriorist. According to Rothbard's interpretation, Zanotti and Cachanosky write, “Mises would have said that economic science is completely a priori, without any room for auxiliary hypotheses that are not directly deducible from praxeology.” However, at this point in Zanotti and Cachanosky's text one finds a citation not to Rothbard (1957), but to Brian Doherty's (2007) *Radicals for Capitalism*, a rather un-scholarly popular history of the American libertarian movement.<sup>35</sup> Doherty (2007, 85) describes praxeology as a “purely logical method...that doesn't rely on empirical evidence at all...Mises' method, heavily derided by critics, was purely a priori, requiring nothing in the way of empirical

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<sup>33</sup> For a similar sentiment, see Hayek (1994, 72-73).

<sup>34</sup> Of course, one cannot prove a negative and it is always possible that a criticism of the extent of Mises' apriorism might be uncovered in some obscure corner of the secondary literature. However, for the purposes of my argument, it suffices that no such criticism appears in the literature considered in the next section.

<sup>35</sup> The book's subtitle – *A Freewheeling History of the Modern American Libertarian Movement* – gives away its relative lack of seriousness.

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observation or verification.” Zanotti and Cachanosky take this to imply that the alleged extremeness of Mises' apriorism lies in a denial of a role for empirical assumptions even in the application of praxeology to real-world events. Having shown that Mises did in fact allow for such a role, Zanotti and Cachanosky conclude that Mises was not an extreme apriorist. More exactly, since, according to Mises ([1949] 1998, 66; quoted in Zanotti and Cachanosky 2015, 116; italics added by Zanotti and Cachanosky), “[e]conomics does not follow the procedure of logic and mathematics. *It does not present an integrated system of pure aprioristic ratiocination severed from any reference to reality. In introducing assumptions into its reasoning, it satisfies itself that the treatment of the assumptions concerned can render useful services for the comprehension of reality[,]*” Zanotti and Cachanosky conclude that Machlup's interpretation of Mises as moderate is plausible and provides a challenge to Rothbard's interpretation of Mises as extreme.

However, as we have seen, Doherty's extent-based conception of extreme apriorism was shared by precisely none of Mises' most prominent critics, all of whom focused instead upon the extremeness of his epistemology of a priori knowledge.<sup>36</sup> Arguments to the effect that Mises was extreme according to his critics' epistemological understanding of extreme apriorism cannot be countered by addressing *Doherty's* extent-based conception. In other words, the most Zanotti and Cachanosky can conclude on the basis of the evidence they provide is that Mises was not extreme relative to a standard that is irrelevant to the historical debate upon which they mean to comment.

In fact, the extent-based definition of extreme apriorism is absent *even from Rothbard* (1957). That is, Zanotti and Cachanosky propose to show that Mises was not extreme according to a notion of extremeness that the explicit target of their attack [Rothbard] did not even hold. Inexplicably, Zanotti and Cachanosky (2015, 120) *acknowledge* that Rothbard did not subscribe to Doherty's extent-based definition of extreme apriorism: “Rothbard mentions the role of empirical assumptions in praxeology.” Like Mises' critics, Rothbard – his arch defender – defined Mises as an extreme apriorist in epistemological terms; unlike Mises' critics, he *defended* the epistemological extremeness of Mises' apriorism. But, Zanotti and Cachanosky (2015, 121), perhaps because they fail to recognize that the extent-based definition of extreme apriorism is not pertinent to the relevant debate, are left baffled: “If Rothbard acknowledges the role of auxiliary hypothesis [sic], why does he endorse extreme apriorism as defined in the debate in which he is engaging?” The answer, simply put, is that the extent-based definition is *not* how extreme apriorism is defined in the debate in which Rothbard (and Machlup, Hutchison, Blaug, Zanotti and Chananosky, and Scheall are) engaged—it is not the definition most relevant to the literature on Mises' apriorism.<sup>37</sup>

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<sup>36</sup> Doherty (2007, 85-86) quotes part of a passage from pages 24-25 of Mises' ([1933] 2003) *Epistemological Problems of Economics* that, after the point at which Doherty cuts off the quote, proceeds to explicate the role of empirical assumptions in praxeological applications: “The other categorical conditions of action are independent of the basic concept; they are not necessary prerequisites of concrete action. Whether or not they are present in a particular case can be shown by experience only” (Mises [1933] 2003, 25). It seems to me likely that, had Doherty quoted the entire passage, Zanotti and Cachanosky could not have attributed to him (or to anyone else) this extent-based conception of the extremeness of Mises' apriorism.

<sup>37</sup> Zanotti and Cachanosky (2015, 112) cite Caplan (1999) and Caplan's (2001, 2003) subsequent debate with Block (1999, 2003) and Hülsmann (1999), as examples that purportedly follow “Rothbard's [but, actually, Doherty's] interpretation and pay little to no attention to other authors, such as Fritz Machlup, who provide alternative interpretations of Mises's epistemology.” However, when Caplan (1999, 823) labeled “the Mises-Rothbard

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Rothbard knew this.<sup>38</sup> That is, Rothbard (1957, 5-6) knew that it was Mises' epistemology and not the extent of his apriorism that, in defending extreme apriorism, required defense:

“We turn now to the Fundamental Axiom (the nub of praxeology): the existence of human action...It is this crucial axiom that separates praxeology from the other methodological viewpoints—and it is this axiom that supplies the critical ‘a priori’ element in economics. [...]

Whether we consider the Action Axiom ‘a priori’ or ‘empirical’ depends on our ultimate philosophical position. Professor Mises, in the neo-Kantian tradition, considers this axiom a law of thought and therefore a categorical truth a priori to all experience. My own epistemological position rests on Aristotle and St. Thomas rather than Kant, and hence I would interpret the proposition differently. I would consider the axiom a law of reality rather than a law of thought, and hence “empirical” rather than “a priori.” But it should be obvious that this type of “empiricism” is so out of step with modern empiricism that I may just as well continue to call it a priori for present purposes. For (1) it is a law of reality that is not conceivably falsifiable, and yet is empirically meaningful and true; (2) it rests on universal inner experience, and not simply on external experience, that is, its evidence is reflective rather than physical; and (3) it is clearly a priori to complex historical events.”

Two points are worth emphasizing here. First, it is Mises' epistemology and not the extent of his apriorism that Rothbard defends.<sup>39</sup> Second, even Rothbard is not prepared to go all the way with

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paradigm as the alternative to neoclassical economics” (Zanotti and Cachanosky 2015, 112), he was referring to *neither* the extent nor the epistemological justifications of Mises and Rothbard's respective apriorisms, but to their shared “effort to rebuild economics on nonneoclassical foundations.” In the papers cited, neither Caplan nor his interlocutors defined the Mises-Rothbard paradigm in the way claimed by Zanotti and Cachanosky. That is, Caplan did *not* state anything like Doherty's notion [misattributed to Rothbard by Zanotti and Cachanosky (2015, 111)] that Mises' apriorism is extreme for the claim that “economic science is completely a priori, without any room for auxiliary hypotheses that are not directly deducible from praxeology.”

<sup>38</sup> Zanotti and Cachanosky (2015, 121) acknowledge the distinction between “the epistemological foundations of the ‘hard core’ and the role of auxiliary hypotheses.” However, they fail to recognize that it is the epistemological issue that has always been most pertinent to criticisms of the extremeness of Mises' apriorism. As I try to show in the present paper as far as the evidence will allow, whether Mises allowed a role for empirical premises in the derivation of explanations of real-world phenomena has rarely, if ever, been relevant to the issues pushed in the critical literature, and surely provides no grounds for declaring Mises merely a moderate apriorist.

<sup>39</sup> When Rothbard (1957, 314) wrote that Machlup and Mises were “poles apart” on matters methodological, he was referring to their divergent epistemological justifications of the basic assumptions of economics. It was Mises' epistemological justification – not the extent of his apriorism, i.e., his recognition of a role for empirical assumptions in applications of praxeology – that, according to Rothbard (1957, 314) went “undefended” in Machlup's debate with Hutchison. What Rothbard rejected in Machlup's interpretation was the notion that Mises' epistemological pronouncements were mere “provocative contentions” (Machlup 1955, page numbers missing) rather than claims worthy of serious defense. Both Rothbard and Machlup conceived of Mises' praxeology as consisting of a purely theoretical a priori element that is married to empirical assumptions in its applications to real-world events.

Although, in his defense of Mises' epistemological justification of the action axiom, Rothbard (1957, 318) preferred “Aristotle and St. Thomas” to Mises' apparent Kantianism, he nonetheless defended Mises' extreme apriorism in *Mises' terms*, i.e., as apodictically certain. Machlup (1955, page numbers missing), on the other hand, in his first engagement with Hutchison, simply glossed such extreme epistemological claims as nothing more than “provocative

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Mises with regard to the Reason without Experience thesis. Although he would certainly assent to an extreme position concerning the Greater Certainty thesis, Rothbard “would consider the axiom a law of reality rather than a law of thought,” which is to say – in some very broad sense – empirical.

The main combatants in the debate in which Rothbard (1957) engaged were Terence Hutchison and Fritz Machlup. The debate concerned Machlup's (1955) “The Problem of Verification in Economics” and its relation to Hutchison's (1938) *The Significance and Basic Postulates of Economic Theory*. One combs this debate in futile desperation to find a conception of extreme apriorism that makes sense of Zanotti and Cachanosky's argument. None of the participants to this debate proffered an extent-based definition of extreme apriorism. Indeed, somewhat ironically, part of Hutchison's (1956) initial response concerned Machlup's refusal to offer any coherent definition of extreme apriorism. As Hutchison (1956, 478-479) noted, to the extent Machlup defined extreme apriorism, he conflated several distinct epistemological perspectives:

“the trouble with [Machlup's] ‘apriorist’ category seems to be that it is much too elastic and comprehensive to be significant...Professor Machlup agrees that his term covers writers of very different epistemological views, ranging from J.S. Mill to Mises.<sup>40</sup> After telling us that he is simply concerned with two ‘extreme positions’ Professor Machlup proceeds, while indeed defining ‘Ultra-Empiricism’ in extreme terms, to leave ‘apriorism’ very elastic. In fact it is very hard to tell whether his two categories are meant to describe two extremes, with a large third middle ground in between; or whether ‘apriorism’ is being so stretched as to include all the middle ground up to the frontier line of ‘Ultra-Empiricism’, the former comprising all those who are prepared to recognize ‘indirect’ methods of verification or confirmation and the latter those who explicitly reject indirect verification and insist on ‘direct’ independent verification or confirmation only (assuming Professor Machlup can give an example of this category).”

Here Hutchison inserted a footnote from which the second epigram that opens this essay is drawn. The footnote begins, quite in keeping with my argument here, “[o]ne function of this elastic category ‘apriorist’, which is first described as ‘extreme’ but which is then stretched to include J.S. Mill, seems to be to cast an aura of respectable moderation on the certainly highly ‘extreme’ political and methodological dogmatizing of Professor L. Mises” (Hutchison 1956, 479, fn4).<sup>41</sup>

In his first foray into the debate, Machlup (1955, page numbers missing) ran together several distinct epistemological attitudes and ideas under the heading “extreme apriorism”:

“Writers on the one side of this issue contend that economic science is a system of a priori truths, a product of pure reason [Machlup cites Mises' *Human Action* here], an

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contentions.” That is, until he was pushed by Hutchison's rejoinder (1956) to confess that Mises was one of the very few extreme apriorists he could name (Machlup 1956, 485).

<sup>40</sup> As we have seen above, the notion that Mill and Mises can be assimilated with respect to the Reason without Experience and Greater Certainty theses is not tenable. Hutchison is on firm ground here, if my analysis above is sound.

<sup>41</sup> The remainder of the footnote constitutes the second epigram above.

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exact science reaching laws as universal as those of mathematics [Frank H. Knight], a purely axiomatic discipline [Max Weber], a system of pure deductions from a series of postulates [Lionel Robbins], not open to any verification or refutation on the ground of experience [Mises' *Human Action* again].”

Although he admits that several distinct epistemological attitudes are represented here, Machlup immediately adds Senior, Cairnes, and Mill to the mix and concludes that all of his “extreme apriorists” shared the same attitude concerning the problem of verification in economics: “The point to emphasize is that Mill does not propose to put the *assumptions* of economic theory to empirical tests, but only the *predicted results that are deduced from them*. And this, I submit, is what all the proponents of pure, exact, or aprioristic economic theory had in mind, however provocative their contentions sounded. Their objection was to verifying the basic assumptions in isolation” (Machlup 1955, page numbers missing; italics in the original). However, in response to Hutchison's criticism of this conflating of distinct epistemologies, Machlup gave up the fight: “I know very few ‘extreme apriorists’ (e.g., Professor von Mises).”<sup>42</sup>

Mises was the only truly extreme apriorist that Machlup bothered to name and, given the course of the debate to that point, Machlup must have been copping not to the extremeness of the *extent* of Mises' apriorism but of his *epistemology*.<sup>43</sup> Machlup never gave up the claim that all of

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<sup>42</sup> On this point, also see Hart (2009, 326):

“Given that his stated purpose of distinguishing between extreme apriorism and ultra-empiricism was to clarify a purely methodological problem, Machlup might have been expected to proceed to a discussion of each of these positions. Instead, he fails entirely to provide a discussion of extreme apriorism. In its place he engages in a discussion of ‘aprioristic economics’. He claims that *all* the proponents of apriorism whom he lists – von Mises, Knight, Weber and Robbins going back to Senior, Cairnes and Mill – ‘however provocative their contentions sounded’ merely advocated that the predictions, rather than the assumptions, of economic theory be subjected to empirical test. It is only after Hutchison protests... that Machlup identifies von Mises as an extreme apriorist. But he still fails to provide any discussion or criticism of extreme apriorism.”

Hart adds, quite perceptively to my mind, that “Machlup's earlier inclusion of von Mises as among those who call for the empirical verification of the predictions of a theory is difficult to square with the idea that von Mises apparently sees no role for empirical verification.” See Mises ([1949] 1998, 858). Of course, this latter point has nothing to do with whether Mises found a role for empirical assumptions in real-world applications of praxeological theory.

<sup>43</sup> Machlup later offered perhaps the ultimate lackadaisical gloss on Mises' extreme apriorism. In effect, he asserted that anyone who worried about Mises' extremeness made an Everest of an anthill. In an interview later in life, Machlup (quoted in Koppl 2002, 32-33) responded to a question concerning Mises' original discussion of his methodological ideas with his Viennese colleagues, “Mises gave us his views on his *a priori* ideas and they were criticized by [Felix] Kaufmann, [Alfred] Schütz and others, but you see it isn't really necessary to criticize these terms ... You may call any model a priori because you can ‘build’ the model according to your own specifications ... [Theory] construction is always a priori, even if you construe [sic? “construct”?] with some experience in mind. The domain of construction needs constructs and postulated relationships between constructs, but it is itself not the result of observation; it is a priori. So you don't have to take these distinctions so seriously as Mises himself did and as some of his followers do today.” This gloss implies that, since both may be called “a priori” in the foregoing sense, there is no potentially worrisome difference, epistemologically (and scientifically) speaking, between a theory constructed on the basis of what the theorist's inner voice tells him to be apodictically certain and one built on, say, widely-recognized and generally-accepted facts of everyday experience. However, as we will see below, there is at least one *pragmatic* difference between theories so constructed or, more exactly, between *theorists* who construct in



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his “apriorists” objected merely to testing the basic assumptions of economic theory in isolation, i.e., he never distinguished them in terms of differences in the *extent* of their respective apriorisms. What made Mises extreme among the “apriorists” named by Machlup was his epistemological justification. If, for Machlup, apriorism simply meant an unwillingness to test the basic assumptions of economic theory in isolation, then there were few other criteria upon which he could have based his honest assessment of Mises as one of the “very few” extreme apriorists.<sup>44</sup>

This point can be expressed in another way. Recall that, according to Zanotti and Cachanosky (2015, 112), Machlup (1955) “offers a bridge between Mises and Lakatos[.]” The idea here seems to be that Machlup identifies resistance to testing the basic assumptions in isolation with defense of a Lakatosian “hard core”; the empirical assumptions that must be added in order to move from pure praxeology to its applications constitute a Lakatosian “protective belt,” etc. So far, so good. However, when we turn to the question *why*, for Mises, the action axiom is part of the hard core – that is, why it is exempted from testing – we get very un-Lakatosian (and, for that matter, un-Machlupian) answers. In effect, we get Mises' extreme statements of the Reason without Experience and Greater Certainty theses. However, the standard reading of Lakatos is that the contents of the hard core “are deemed irrefutable—or, at least, refutation-resistant—by *methodological fiat*” (Musgrave and Pigden 2016).<sup>45</sup> *We choose* – or prevailing methodological convention chooses for us – the contents of our hard cores. It is simply un-Lakatosian to insist, as Mises does, that the contents of the hard core are known with apodictic certainty a priori of scientific inquiry.<sup>46</sup> According to Mises ([1949] 1998, 39-40), “[t]he starting point of *praxeology* is not a choice of axioms and a decision about methods of procedure, but reflection about the essence of action.”<sup>47</sup> Thus, in order to read Mises as a proto-Lakatosian, one must stretch beyond recognition either Mises or Lakatos, or both.

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these ways: he who thinks he knows with apodictic certainty is typically disinclined toward pluralism about either theory or method. An arch-defender of the Reason without Experience and Greater Certainty theses is not likely to brook the possibility of either a theory or a method rival – much less superior – to their own. In any case, although he was of course free to express his opinion, Machlup was in no position to dictate to the methodological community where its concerns should lie. Blaug, Hutchison, and their modern-day descendants, are quite entitled to a response that treats their concerns more seriously than does Machlup's nonchalant hand-waiving.

<sup>44</sup> Zanotti and Cachanosky (2015, 113) assert that “Blaug's passage [concerning Mises' cranky idiosyncrasy] is based on a misreading of Mises.” However, this claim hinges on conflating the extent and epistemological dimensions of appraisal. Machlup's interpretation of Mises as a proto-Lakatosian concerned only the extent dimension; indeed, as we have seen, Machlup was clear that he had no interest in – and obviously made no attempt to defend – Mises' epistemological justification of the purportedly a priori nature of the fundamental axiom of praxeology. However, Blaug's claim concerns Mises' epistemological justification, not the extent of Mises' apriorism. Thus, there is nothing in Machlup's interpretation of Mises that implies Blaug was wrong to describe Mises as an idiosyncratic epistemological crank.

<sup>45</sup> “If we perform an experiment, *it depends on our methodological decision* [emphasis added] which theory we regard as the touchstone theory and which one as being under test; but this decision will determine in which deductive model we shall direct the *modus tollens*” (Lakatos 1968, 157). “Whether a proposition is a 'fact' or a 'theory' depends on our methodological decision” (Lakatos 1968, 161). “The 'core' of a research-programme is 'irrefutable' by the methodological decision of its protagonists” (Lakatos 1968, 171).

<sup>46</sup> See Caldwell (1982, 87): “[t]he negative heuristic disallows investigation of the ‘hard core’, the (*by convention*) *irrefutable* part of the research program” (emphasis mine).

<sup>47</sup> Leeson and Boettke (2006, 256) acknowledge that this is Mises' position. However, Boettke (2015) fails to acknowledge that, if this was Mises' position, then the Machlupian, proto-Lakatosian, reading that he presents as a viable interpretation is, in fact, not viable.

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Moreover, on the Lakatosian (1968, 176) picture, scientific progress requires the proliferation of competing research programs. However, Mises' extreme apriorism implies – a priori – the inferiority of any economic research program built from a negative heuristic that fails to encompass the action axiom.<sup>48</sup> Mises was a methodological dualist about the relationship between the social and natural sciences – that is, he insisted that there were distinct methods in the social and natural sciences – but he was a monist about economic method: for Mises, the only legitimate way to do economics was praxeological; no non-praxeological method counted as economics. The action axiom is known to be true with apodictic certainty. Any hard core that fails to include this axiom (or some other apodictically certain and equally theoretically useful principle, if one exists) is necessarily inferior to praxeology.<sup>49</sup> In effect, with regard to the social sciences, Mises was an intolerant methodological totalitarian.<sup>50</sup>

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<sup>48</sup> As Caldwell (1982, 87) noted, Lakatos argued that the evaluation of research programs is necessarily “a long-range affair; there is no ‘instant rationality’ by which to evaluate the success or failure of a research program.”

<sup>49</sup> “[W]e find in the Austrian literature no discussion of theory choice. The reason is not difficult to discover: since the Austrian system is presumably founded on a priori true postulates, it is either true or false. There is no need to compare it with other systems with the idea of ranking them: the Austrian system is either true, or it is false. All evaluation, then, must ‘come from within’” (Caldwell 1982, 130-131). As Caldwell (1982, 132) noted, this would be less problematic were it not seemingly possible to multiply the number of theoretical systems built on purportedly a priori axioms claiming the same (apodictic) certainty: “as long as proponents of such systems eschew any resort to empirical testing or other forms of criticism, there appears to be no way to choose among a (possibly) ever growing number of such systems.” Also see my (2015, 96-97):

“Claims to a priori knowledge of the sort asserted by some Austrians are undermined by the fact that they are utterly unconvincing to those who either do not judge themselves in possession of an intuitive access to the invisible “facts” of the world, or, who, alternatively, *do* deem themselves so equipped, but who happen to intuit different “facts” about some world purportedly inaccessible to observation. By insisting that some inner voice provides them with immediate access to these facts, apriorists provide their opponents with an easy excuse to reject out of hand any theoretical structure erected on such a doubtful epistemological basis. Moreover, the apriorist’s denial of empirical testing removes the one means of conceivably settling such disputes beyond persuasion, either via rhetoric or, much worse, by some combination of fist, boot, and gun. Those who claim to possess a priori access to social facts need not share—and so often in the history of mankind have in fact not shared—with adherents of the Austrian school of economics the ethical values of liberty, tolerance, internationalism, and pacifism.

<sup>50</sup> There is some ambiguity here because, though Mises clearly conceived of the action axiom as a sufficient basis for the development of (deductively-valid) economic theory, it is not entirely obvious that he took it to be the necessary starting-point. Perhaps some other introspected principle might serve (equally well?) as a basis for the valid deduction of pure economic theory? Perhaps some non-praxeological economic theory, that might choose (different) axioms and methods of procedure, is possible? Perhaps, but the evidence suggests this was *not* Mises’ view: “For the purposes of science we must start from the action of the individual because this is the only thing of which we can have direct cognition...[Othmar] Spann, the most prominent present-day champion of universalism, strongly emphasizes that universalist sociology deals with spiritual facts that cannot be drawn from experience because they ‘possess, by virtue of their a priori character, a pre-empirical, supra-empirical existence’...[T]his is not accurately expressed. *Only the laws of human action can be derived a priori*[.]” (Mises [1933] 2003, 45; emphasis mine). Moreover, Mises’ ([1933] 2003, 25) assertion that “the first task” of economics is the deductive derivation of all economically-relevant “concepts and categories” from “the fundamental category of action” would seem to preclude the equal legitimacy of any other possible starting point of economic theorizing. If this is “*the* first task” (not “a possible first task”) of economic theorizing, starting elsewhere would, on Mises’ conception, simply be a mistake. Finally, see Mises’ ([1933] 2003, 226-228) argument to the effect that “there is still only one economics.”

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Another argument that Mises was not an extreme apriorist can be found in Koppl (2002, 32). Koppl is less concerned with the historical debates concerning Mises' apriorism than with developing an Austrian-inspired methodology that incorporates the best insights of Mises, Hayek and Alfred Schütz, and should be understood with this objective in mind. In order to assimilate Hayek and Schütz via Mises, Koppl has to smooth the rough edges of Mises' apriorism; it would be difficult, if not impossible, to assimilate Hayek and Schütz through the prism of Mises' methodology without grinding down the extremeness of Mises' apriorism to a more polished form. Moreover, in Koppl's defense, unlike several contributors to this literature, he is quite upfront about Mises' methodological deficiencies, including the twin notions that a priori knowledge is both disconnected from experience and inviolable (see Koppl 2002, 37-38).

In any case, for my purposes, it is necessary to note merely that Koppl's argument that Mises was a "loose" (i.e., moderate) rather than a "strict" (i.e., extreme) apriorist hinges on a standard irrelevant to the historical debates over Mises' methodology. According to Koppl (2002, 32),

"In the strict sense, knowledge is '*a priori*' when it passes Kant's double test. 'Necessity and strict universality, therefore, are infallible tests for distinguishing pure from empirical knowledge, and are inseparably connected with each other (Kant 1787, 26). Loose apriorism is the claim that much of our scientific knowledge is not derived from experience or subject to direct empirical test. Knowledge that is '*a priori*' in the loose sense is similar to knowledge that is a priori in the strict sense. In both cases, the knowledge is general knowledge that organizes our more particular observations. In both cases, the knowledge cannot be shown wrong by counter-example. An apparent counter-example is really just something outside the scope of application of the a priori knowledge. Lakatos' 'hard core' is a priori in the loose sense, but not in the strict sense. Strict apriorism implies loose apriorism.

Today, many methodologists accept some form of loose apriorism. Perhaps most do. Lakatos is a good example. So is [Thomas S.] Kuhn. In the 1930s, however, loose apriorism was not so widely accepted. In the context of the times, Mises' apriorism was very advanced, and an improvement on prevailing views. Mises did not distinguish loose apriorism from strict apriorism. Many of his statements seem to defend strict apriorism. I believe it is fair to say, however, that the real core of Mises' apriorism is simply the independence from direct empirical test. Mises' loose apriorism is important and unambiguous. It is not entirely clear that he was truly a strict apriorist."<sup>51</sup>

For my purposes, Kant's double test is irrelevant to the question of the extremeness (or "strictness") of Mises' apriorism. Those who have both criticized and defended Mises' have typically been concerned with his place among economic methodologists, not with any test

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<sup>51</sup> I must confess to some obtuseness in making sense of this passage, especially, the first paragraph. What is the difference between "a priori" (note the scare quotes) in the loose sense, a priori (*sans* scare quotes) in the loose sense, and a priori (*sans* scare quotes) in the strict sense? I am at a loss. Is there an "a priori" (scare quotes) in the strict sense? Whatever the case may be, it is not clear what the *argument* is supposed to be for the conclusion that Mises' conception of a priori knowledge fails "Kant's double test." "Many of [Mises'] statements seem to defend strict apriorism"—indeed! We appear to be left with nothing more substantive than Koppl's belief that "it is fair to say" Mises' was not "truly a strict apriorist," as measured against Kant's double test.

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proposed by Kant. It suffices for my purposes that Mises' positions with respect to the Reason without Experience and Greater Certainty theses are to the extreme side of other prominent methodological apriorists in the history of economic thought and, moreover, that Mises' extremeness with respect to these considerations has historically been acknowledged in the critical literature. Kant's double test is irrelevant to the historical question of the comparative extremeness of Mises' apriorism vis-à-vis the history of economic thought. In order to establish the relative looseness of Mises' epistemology in this respect, one must show that Mises was on the "loose" side, not of Kant, but of other prominent methodological apriorists.

In several places Mises noted the problem, first raised by Pierre Duhem and later made especially pertinent by W.V.O. Quine (1951), of the underdetermination of theory by evidence. As Mises understood, what gets tested against experience is never a particular proposition in isolation, but rather, a whole complex of statements that includes the fundamental axioms of the relevant theory, subsidiary empirical assumptions, and many, often merely implicit, lower-level hypotheses. Thus, when experience appears to defy our theoretical expectations, we are never in a position to say with certainty which propositions among this complex are false and to be rejected.

For Quine (1951), the upshot of underdetermination was that, if theory choice were to be rational, it had to proceed on the basis of extra-empirical considerations, in particular, pragmatic considerations such as *simplicity, conservatism, and convenience*. In a particularly influential paper, which argued persuasively that cognitive relativism is not among the implications of Quinean underdetermination, Larry Laudan (1990) expanded this list of "ampliative" considerations upon which rational theory choice might be grounded even in the face of underdetermination. However, the lesson that Mises drew from underdetermination was not the Quinean one that *recalcitrant evidence undermines the entire complex of statements* from which a seemingly falsified implication is drawn (and, thus, that pragmatic considerations are necessary for rational theory choice), but the radically un-Quinean notion that it is always methodologically legitimate to refuse to reject one's a priori theory provided it is "correct" and "universally valid." Of course, Mises never explained how this was anything other than plain question-begging.

“[A] proposition of an aprioristic theory can never be refuted by experience. Human action always confronts experience as a complex phenomenon that first must be analyzed and interpreted by a theory before it can even be set in the context of an hypothesis that could be proved or disproved; hence the vexatious impasse created when supporters of conflicting doctrines point to the same historical data as evidence of their correctness.<sup>52</sup> The statement that statistics can prove anything is a popular recognition of this truth. No political or economic program, no matter how absurd, can, in the eyes of its supporters, be contradicted by experience. *Whoever is convinced a priori of the correctness of his doctrine can always point out that some condition essential for success according to his theory has not been met...* Disagreements concerning the probative power of concrete historical experience can be resolved only by reverting to the doctrines of the universally valid theory, which are independent of all experience. Every theoretical argument that is

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<sup>52</sup> This passage follows Mises' ([1933] 2003, 29) argument for the theory-dependence of experience. It seems to me that Mises confused the fact that we bring theoretical assumptions to our confrontations with the external world for the mistaken notion that such assumptions are neither ultimately derived from nor revisable in virtue of these confrontations.

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supposedly drawn from history necessarily becomes a logical argument about pure theory apart from all history... Precisely because the phenomena of historical experience are complex, the inadequacies of an erroneous theory are less effectively revealed when experience contradicts it than when it is assessed in the light of the correct theory... The obstinacy of such unwillingness to learn from experience should stand as a warning to science. If a contradiction appears between a theory and experience, we always have to assume that a condition presupposed by the theory was not present, or else that there is some error in our observation. *Since the essential prerequisite of action—dissatisfaction and the possibility of removing it partly or entirely—as always present, only the second possibility—an error in observation—remains open.* However, in science one cannot be too cautious. If the facts do not confirm the theory, the cause perhaps may lie in the imperfection of the theory. The disagreement between the theory and the facts of experience consequently forces us to think through the problems of the theory again. But so long as a re-examination of the theory uncovers no errors in our thinking, we are not entitled to doubt its truth" ([1933] 2003, 31; emphasis mine).

In other words, experience is always interpreted through the lens of an a priori theory. Competing a priori theories can interpret the same evidence. Thus, because it can always be claimed that some condition assumed by the theory was not present in the case under examination, experience doesn't (ever? necessarily?) convince one to reject their a priori theory. However – here's the rub – *because, for Mises, pure reason guarantees that the essential condition assumed by praxeology is always present* – we are “entitled” to doubt the truth only of invalid inferences from this assumed condition, *but never the assumption itself.*

On the Quinean picture of underdetermination properly understood, although it is always *psychologically* possible to simply dig in and believe whatever “come what may,” it is not *rational* to do so. Theory choice is rational to the extent it proceeds on the basis of the relevant pragmatic considerations, not on the basis of what pure reason says is apodictically certain.

This is relevant to the confused claim that one encounters in the secondary literature among those inclined to read Mises as a moderate apriorist to the effect that Mises rejected “the traditional analytic/synthetic distinction altogether” (Leeson and Boettke 2006, 261; Boettke 2015, 83-84). It is true that “[a]ccording to Mises... like the laws of geometry, the pure logic of choice is entirely tautological. Nevertheless, [for Mises,] these ‘mere tautologies’ have incredible empirical significance. Who would deny, for instance, that the aprioristic propositions of geometry are applicable to the real world?” (Leeson and Boettke 2006, 261).<sup>53</sup> In another place, Mises (1962, 44) wrote that “[t]he questions whether the judgments of praxeology are to be called analytic or synthetic and whether or not its procedure is to be qualified as ‘merely’ tautological are of verbal interest only.” Even if we grant that these statements constitute a rejection of the analytic/synthetic distinction, we must confront the fact that Mises may not have

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<sup>53</sup> See [note 11](#) above. Applicability does not imply truth. Euclidean geometry is, for the most part, applicable to the macroscopic world; whether it is true of this world or any other is, at best, an open question. Recall Einstein's famous dictum that “[i]nsofar as the statements of geometry speak about reality, they are not certain, and insofar as they are certain, they do not speak about reality” (Einstein 1921, 3). Also see Jevons ([1874] 1879, 235; quoted in Hutchison 1938, 25): “If a triangle be right-angled the square on the hypotenuse will undoubtedly equal the sum of the squares on the other two sides; but” because Jevons can never know whether the relevant space is Euclidean or otherwise, “I can never be sure that a triangle is right-angled.”

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understood all of the implications of what he was rejecting. Mises' "rejection" of the analytic/synthetic distinction is manifestly incoherent given his insistence upon the apodictic certainty of the action axiom. In effect, rejecting the analytic/synthetic distinction means rejecting the possibility of apodictically certain propositions. It is one thing to say that, because of underdetermination, the action axiom cannot be tested *in isolation*; it is a radically different thing to say that the action axiom is known with apodictic certainty.<sup>54</sup>

Quine (1951) established underdetermination by arguing that the analytic/synthetic "dogma" (and its identical twin, the "dogma" of reductionism) was untenable. The analytic/synthetic dogma has historically been understood as an allegedly hard-and-fast distinction between a class of (analytic) sentences that are immune from revision and a second class of (synthetic) sentences that are revisable in virtue of experience. In effect, Quine's argument shows that both classes of sentences are empty. More to the point, if Quine is right that the analytic/synthetic distinction is untenable, then *there are no sentences immune from revision*, including the action axiom. The possibility of an apodictically certain statement *requires* the analytic/synthetic distinction. One can either accept the analytic-synthetic distinction and the possibility of apodictically certain knowledge or reject both, but it is manifestly incoherent to reject the analytic-synthetic distinction while insisting on the possibility of apodictically certain knowledge.<sup>55</sup> Thus, Mises cannot be assimilated to Quine without considerable damage to either Mises or Quine, or both.

It is possible to accept the moderate reading of Mises as far as it goes, but insist that it doesn't go very far toward resolving the central issue, namely, the epistemological status of the axiom that grounds praxeology. Is the action axiom exempted from testing in virtue of a (Lakatosian) *methodological choice* or *convention*? Is it an empirical proposition that just happens to be far removed from the evidentiary perimeter in a (Quinean) web of belief? Or, is it *apodictically certain*—known via pure reason beyond all doubt? This is no trivial distinction. As I have noted above, the moderate reading would tend to encourage an image of Mises as a methodological pluralist with respect to economics. According to such an image, we might make different methodological choices, adopt different methodological conventions, or maintain different webs of belief, and decide between them on the basis of pragmatic or some other considerations. However, the extreme interpretation encourages reading Mises as a methodological *monist* about economic method: any hard core or web of belief that does not include the apodictically certain action axiom is necessarily inferior to praxeology; either it is, at best, less epistemically secure than it would be if grounded on the action axiom (or some other apodictically certain and equally useful axiom) or it is plainly inappropriate for economic inquiry—either way, the "one" economics is founded upon the action axiom (Mises [1933] 2003, 226).

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<sup>54</sup> I admit to unconsciously channeling Caldwell (1984, 368) here: "it is one thing to say that first postulates are untestable and make real references, and quite another to take the leap that Mises takes and claim that a certain set of postulates are a priori true. While the view that assumptions need not be directly testable is commonplace among philosophers today, few support an apriorist interpretation of their logical status." It is precisely the illegitimacy of the elision from the notion that *everyone agrees that assumptions need not be directly testable to therefore, there is nothing controversial or extreme about Mises' apriorism* that I am trying to get defenders of Mises' apriorism as moderate to acknowledge.

<sup>55</sup> The impossibility of coherently conjoining rejection of the analytic-synthetic distinction with acceptance of the possibility of apodictic certainty undermines the argument of Leeson and Boettke (2006, 261) to the effect that Mises both rejected the distinction and insisted that there were "*indispensable* mental constructs that make it possible for us to understand the real world" (emphasis mine).

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Regarding the Machlupian, proto-Lakatosian, interpretation of Mises, Peter Boettke (2015, 82-83; also see Leeson and Boettke 2006, 248) has argued that “the position articulated by Machlup is not some exotic twist on Mises; it actually is simply a restatement of the general position articulated by the founders of the Austrian School of economics: Menger and [Böhm]-Bawerk. In their development of economic theory, they distinguished between pure theory, or exact theory, and applied theory. *Pure theory* is the realm of the pure logic of choice...*Applied theory* is the realm in which the pure theory is joined with auxiliary empirical assumptions concerning institutions.” Again, we get the argument that Mises was not an extreme apriorist because he acknowledged the role of “auxiliary empirical assumptions” in applied theory and treated pure theory as, in effect, a Lakatosian “hard core.” Of course, as I have shown in the present paper, such claims do not establish Mises as merely a moderate apriorist precisely because they overlook his extreme epistemological claims that testing is superfluous given that we already know the action axiom to be apodictically certain via pure reason.

The relevant point concerning Mises' comparative epistemological extremeness can be established via another route. Whatever the relationship they posited between pure and applied theory, both Menger and Böhm-Bawerk denied, and rather vehemently so, the possibility of economic knowledge derived from a source other than experience—both Menger and Böhm-Bawerk rejected the Reason without Experience thesis. According to Terence Hutchison (1981, 178), “Menger rejects a priori axioms and theorems deduced from them.” Hutchison refers the reader to a passage from Menger's *Problems of Economics and Sociology* (1963):

“Theoretical economics has the task of investigating the *general nature* and the *general connection* of economic phenomena, not of analyzing economic *concepts* and of drawing the logical conclusions resulting from this analysis. The phenomena, or certain aspects of them, and not their linguistic image, the concepts, are the object of theoretical research in the field of economy. The analysis of the concepts may in an individual case have a certain significance for the *presentation* of the theoretical knowledge of economy, but the goal of research in the field of theoretical economics can only be the determination of the general nature and the general connection of economic *phenomena*. It is a sign of the slight understanding, which individual representatives of the historical school in particular have for the aims of theoretical research, when they see only *analyses of concepts* in investigations into the *nature* of the commodity, into the *nature* of economy, the *nature* of value, of price and similar things, and when they see ‘the setting up of a system of concepts and judgments’ in the striving for an exact theory of economic phenomena. A number of French economists fall into a similar error when, with an erroneous view of the concepts ‘theory’ and ‘system’, they understand by these terms nothing more than theorems obtained deductively from a priori axioms, or systems of these” (italics in the original).<sup>56</sup>

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<sup>56</sup> Hutchison (1981, 198) concludes his analysis of Menger's methodology with the statement that the founder of the Austrian School was “essentially a critical, anti-extremist, anti-exclusivist moderate.” Hutchison (1981, 208) also notes, implicitly indicating the distinction between the extent and epistemological dimensions, that “Mises's views owe something to Menger's notions regarding ‘exact laws’, but more to the epistemological pretensions of Wieser regarding the reliability and advantages of introspection. But Mises certainly added his own particular emphasis...The nature of human action provides economics with an a priori basis.”

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The reader unconvinced that Menger would have attributed to Mises a “slight understanding” of the relevant epistemological issues should review Menger’s son Karl’s *Reminiscences of the Vienna Circle and the Mathematical Colloquium* (1994, 34-35) wherein the younger Menger quotes his father’s 1867 notes on a planned, but never completed, book preliminarily titled *Critique of Metaphysics and of the so-called Pure Reason from the Empiristic Point of View*. The elder Menger “characterized its objectives in the following seven short paragraphs:

All so-called ideas a priori and knowledge from pure reason must be presented as empirical statements or as errors, i.e., false experiences or empty compilations of words (*leere Wortzusammenstellungen*).

There is no truth of a metaphysical nature and thus lying beyond the limits of experience. Beyond there are only rational calculi (*Verstandeskalküle*) and fantasies.

There is no metaphysics. There is only a theory of the correct observation and consideration of things that is free of prejudices, be they accidental or created by education.

There are neither *aeternae veritates* as the dogmatists claimed nor forms of perception and thought lying in us by which Kant replaced the *aeternae veritates*.

Kant rejects metaphysics and replaces it by the critique of pure reason. I say, there is no pure reason.

There is no riddle of the world that ought to be solved. There is only incorrect consideration of the world. This objection is directed against the essence of modern philosophy and against the form of empiricism.

Mere materialism has equally pernicious consequences for science as mere idealism. Just as the latter confuses the world, so the former makes it shallow.”

A more “positivistic” response to Kantianism and its intellectual descendants is difficult to fathom, but more to the point, Boettke’s claim that Machlup’s interpretation of Mises’ apriorism is “simply a restatement of [Menger’s] general position” ignores the ancient ocean separating Menger and Mises on matters epistemological.

Böhm-Bawerk was seemingly less entranced by methodological problems than any other economist of the first three generations of Austrian scholars. Accordingly, we have less evidence of his epistemological predilections. Nonetheless, such clues as we do possess undermine Boettke’s claim that the distinction between pure and applied theory indicates methodological continuity from Menger and Böhm-Bawerk to Mises. Böhm-Bawerk “insisted most emphatically that the methods and criteria of economics were closely parallel with those of the natural sciences. He rejected, very sensibly, both Baconian induction, at one extreme, and apriorism at the other. According to Böhm-Bawerk: ‘The abstract-deductive method...has no fancy a priori axioms as a basis for its inferences, nor does it confine itself to inferences and deductions. On the contrary, it starts exactly as the historical school would have it start, with observations of actual conditions and endeavours from this empirical material to build general laws’” (Hutchison 1981, 203-204; the quote is from Böhm-Bawerk 1924, 263-4).

So, while Menger and Böhm-Bawerk may have agreed with Mises that the “pure logic of choice” constitutes only a part of economics, to be augmented in its applications, they would have rejected Mises’ extreme epistemological justification of our knowledge of pure theory.



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Mises' epistemology was extreme not only as compared to other methodological apriorists, but also as compared to the founders of the Austrian School.<sup>57</sup>

### Misesian Apriorism and the Methodology of the Austrian School

Some might claim that the present paper is singularly uncharitable to Ludwig von Mises. This is a non-starter. One implication of the paper is that, by bending too far over backwards to be generous to Mises, those who exonerate his apriorism as moderate have been exceptionally uncharitable to his critics, to the point of effectively ignoring their arguments. Indeed, if the argument were sound that Mises was not extreme because all he really wanted was to tell a proto-Lakatosian or a proto-Quinean story, then Hutchison, Blaug, Samuelson, Hayek, et al, were simple fools to criticize his epistemology as extreme, especially after Quine and Lakatos wrote in the 1950s and 1960s. Yet, these epistemological criticisms persisted long after Quinean and Lakatosian ideas had become passé. Of course, it is always possible that these otherwise very intelligent people simply misread Mises and that all he meant was nothing more controversial than proto-Lakatosianism or proto-Quineanism, but this strains the limits of plausibility. Charity cuts both ways. There is something that all of these authors identified as extreme in Mises' epistemology—something that should be confronted directly, and either justified or rejected, once and for all. It does not suffice to pretend there is nothing extreme about Mises' epistemology.

Implicit in my argument throughout the present paper has been the historiographic principle that, since we are concerned with a historical matter, the question should be decided as far as possible on the basis of the historical evidence, charity be damned. That is, what matters is the evidence for and against Mises' apparent belief that pure reason delivers apodictically certain knowledge of the action axiom; considerations of charity are only likely to lead us astray here. *Of course*, it is more charitable to read Mises as a proto-Lakatosian or a proto-Quinean than as an extreme apriorist, but, as a historical matter, is it not perhaps too charitable? If we're more concerned with what Mises really believed than with protecting his reputation, the moderate interpretation of Mises only obfuscates the historical issue.

In my (2015) "Hayek the Apriorist?" I argued that, even if Hayek had been a methodological apriorist for a time – a charge he always explicitly denied – his apriorism would have been a very different beast from Mises'. Hayek had a radically empiricist epistemology according to which every bit of an organism's knowledge is an emergent consequence of its (or its species') confrontations with the environment. In the terms adopted in the present essay, Hayek's epistemology implies a flat rejection of the Reason without Experience thesis. Implicit in my argument in "Hayek the Apriorist?" was the notion that, considered as a possible basis for Austrian methodology, Hayek's epistemology was not merely different from, but, in important respects, *superior* to Mises' epistemology. In particular, unlike Mises' rationalist epistemology,

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<sup>57</sup> Indeed, Mises' epistemology was extreme not only as compared to his predecessors in the Austrian School, but also relative to several of his most famous intellectual inheritors. We have already seen that Hayek's epistemology cannot be assimilated to Mises'. Machlup's (1955) defense of Mises was less than halfhearted for a reason and it was not because he thought Mises' epistemological justification well-considered. Beyond this, against the implication ambiguously left by Boettke (2015, 81; also see Leeson and Boettke 2006, 247), neither of Mises' "more methodological and philosophical students," namely, the Husserlian phenomenologist Alfred Schütz and the Vienna Circle-affiliated Felix Kaufmann, would have been likely to defend Mises' extreme attitude toward the Reason without Experience and Greater Certainty theses.

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Hayek's empiricism places the Austrian School closer to the mainstream of scientific practice than its lunatic fringe, is consistent with the Austrian emphasis upon theories of the market *process* and the central role therein of both *ignorance* and *learning*, and, unlike Mises' methodological totalitarianism, coheres with the principles of political liberalism.<sup>58</sup> Thus, there was an implicit plea in "Hayek the Apriorist?" for Austrians to finally reject Misesian apriorism and rebuild Austrian methodology along Hayekian lines. This is a project that I have since continued to pursue in several further publications.<sup>59</sup>

"Hayek the Apriorist?" was published in the March 2015 issue of the *Journal of the History of Economic Thought* as part of a mini-symposium on Austrian methodology alongside Zanotti and Cachanosky (2015) and an introduction by Peter Boettke (2015). Unfortunately for the purposes of the argument advanced in "Hayek the Apriorist?" Boettke's introduction denied the very distance established in my paper between Mises and Hayek on matters epistemological. If the argument of "Hayek the Apriorist?" is sound, then Boettke's (2015, 82) assertion that, with respect to methodology, "there is indeed a shared research program by Mises and Hayek" must be rejected. Certainly, Boettke's (2015, 82) claim that "these two papers mutually reinforce [this latter] position" ignores and illegitimately co-opts the argument of "Hayek the Apriorist?" in defense of a thesis that I deny. Contra Boettke (2015, 82), I believe there is a "radical departure of views methodologically...between the two leading lights of the modern Austrian school of economics."<sup>60</sup> Boettke's (2015, 82) suggestion that "the most productive reading of Mises is a Hayekian one and the most productive reading of Hayek is a Misesian one" requires ignoring the profound differences in their respective epistemologies. I accept Boettke's (2015, 82) claim that "the sort of 'loose' apriorism Machlup attributes to Mises, as opposed to the 'extreme' apriorism attributed to him by Rothbard, aligns with the Hayekian apriorism that Scheall articulates," but I deny that Mises' epistemology of a priori knowledge – his extreme position with regard to both the Reason without Experience and Greater Certainty theses – is consistent with what Boettke calls "Hayekian apriorism." Mises' apriorism is not "moderate," "loose," or "Hayekian." It is extreme and uniquely Misesian.

Zanotti and Cachanosky (2015, 125) make similar gestures toward the mistaken notion of Mises and Hayek's fundamental epistemological unity: "Mises's position was, in fact, according to Machlup's reading, closer to Hayek than at least Hayek seems to have acknowledged." "[F]iltering Mises through Machlup" implies, according to Zanotti and Cachanosky, that "Mises is closer to Hayek and Popper on philosophy of science than Rothbard's interpretation allows"

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<sup>58</sup> See [note 25](#) above.

<sup>59</sup> This work has led me to develop the idea of Hayekian "methodological liberalism," a kind of meta-methodological pluralism that both recognizes the role of traditions, customs, habits, etc. in regulating scientific processes and the requirement for scientific progress of sufficient freedom to break from these constraints in order to develop new theories, make new discoveries, etc. For the "Case for Methodological Liberalism," see my unpublished manuscript (2016) "Kinds of Scientific Rationalism." As a methodological liberal, I am open to the prospect of rebuilding Austrian economics along the lines of any viable methodological paradigm, and recognize that the Hayekian approach is not the only possibility. What I believe is not viable is an unreformed Misesianism that neglects to confront directly, and either embrace and explain, or reject and repair, its manifest extremeness.

<sup>60</sup> According to Boettke (2015, 82), "Scheall's paper [i.e., "Hayek the Apriorist?"] does justice to Hayek, but, from the perspective I have been suggesting, he relies for the most part on a more Rothbardian reading of Mises than would be suggested after reading Zanotti and Cachanosky." For the record, neither Rothbard nor even a "Rothbardian reading of Mises" played any role in my argument in "Hayek the Apriorist?" If memory serves, I had not even read Rothbard (1957) when I wrote "Hayek the Apriorist?"

## What is Extreme about Mises' Extreme Apriorism?

Scott Scheall


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(Zanotti and Cachanosky 2015, 122). Thankfully for the argument of “Hayek the Apriorist?”, as I have shown here, Machlup’s attempt to make a moderate apriorist out of Mises fails: Machlup can make the case only on the irrelevant basis of the limited extent of Mises’ apriorism and is ultimately forced to admit that, with respect to the historically-relevant consideration of epistemological justification, Mises is the only extreme apriorist he can name.

However, lest the reader walk away from this paper with the misimpression that my only concern is the fate of “Hayek the Apriorist?” allow me to say that my motivation in writing both that paper and the current one is a firm belief that the Austrian School is in need of methodological reform. The extremeness of Mises’ apriorism has, throughout the history of the last century of economic thought, been used time and again as a too-simple excuse to either ignore or diminish some otherwise fine theoretical lessons developed by Austrian-School economists. Moreover, to reiterate, Mises’ extreme epistemology is not consistent with either Austrian practice – the emphasis on real-world market processes, ignorance, and learning from the environment – or political liberalism: it is methodological totalitarianism incarnate. In refusing to confront, in preferring to gloss or ignore, the extremeness of Mises’ epistemology, those who thereby misinterpret his apriorism as moderate do further damage to the historical understanding of the School and its prospects moving forward. There is nothing to be lost and quite a lot to be gained from honestly confessing the extremeness of Mises’ apriorism, and either justifying this asperity in an epistemologically respectable way or rebuilding Austrian methodology upon a less extreme epistemological foundation.<sup>61</sup>

Barotta, P. (1996). A neo-Kantian critique of von Mises’s epistemology. *Economics and Philosophy*, 12, 51-66.

Blaug, M. (1980). *The methodology of economics: Or how economists explain* Cambridge: Cambridge University Press.

Block, W.E. (1999). Austrian theorizing: Recalling the foundations. *The Quarterly Journal of Austrian Economics*, 2 (4), 21–39. 

Block, W.E. (2003). Realism: Austrian vs. neoclassical economics, Reply to Caplan. *The*

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<sup>61</sup> Bruce Caldwell (1984, 370) made a similar plea over 30 years ago: “if praxeologists insist on retaining their apriorism, they...do well to try to find firmer ground than that provided by Mises on which to erect their methodological structure. One alternative...is a reconstruction of the Kantian synthetic a priori category. Another option, and one which some modern Austrians seem to find attractive, is to move away from apriorism altogether and towards a more thoroughgoing subjectivism.” I do not mean to suggest that Caldwell’s plea has fallen entirely upon deaf ears. As I indicate in the text, much work, including some of my own, has been directed toward reconstructing Austrian methodology along less Misesian lines. However, that the significance of this reformist literature is somewhat obscure among contemporary Austrians and, more to the point, that some of these Austrians continue to fail to confront the extremeness of Mises’ apriorism suggests that the plea need be shouted ceaselessly.

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*Quarterly Journal of Austrian Economics*, 6 (3), 63–76.

Boettke, P. (2015). The methodology of Austrian economics as a sophisticated, rather than naive, philosophy of economics. *Journal of the History of Economic Thought*, 37, 79-85.

Böhm-Bawerk, E. (1924). *Gesammelte Schriften*. Leipzig: Hölder-Pichler-Tempsky.

Bowley, M. (1936). Nassau Senior's contribution to the methodology of economics. *Economica*, 3 (11), 281-305.

Bowley, M. (1949). *Nassau Senior and classical economics*. New York: Augustus M. Kelley.

Cairnes, J.E. (1965). *The character and logical method of political economy*. London: Frank Cass.

Caldwell, B. (1982). *Beyond positivism: Economic methodology in the twentieth century*. London: George Allen & Unwin.

Caldwell, B. (1984). Praxeology and its critics: An appraisal. *History of Political Economy*. 169 (3), 363–379.

Caldwell, B. (1988). Hayek's transformation. *History of Political Economy*. 20 (4), 513–541.

Caldwell, B. (1992a). Hayek the falsificationist? A refutation. *Research in the History of Economic Thought and Methodology*. 10, 1–15.

Caldwell, B. (1992b). Reply to Hutchison. *Research in the History of Economic Thought and Methodology* 10, 33–42.

Caldwell, B. (2004). *Hayek's challenge*. Chicago: University of Chicago Press.

Caldwell, B. (2009). A skirmish in the Popper wars: Hutchison versus Caldwell on Hayek, Popper, Mises, and methodology. *Journal of Economic Methodology*, 16 (3), 315–324.

Caplan, B. (1999). The Austrian search for realistic foundations. *Southern Economic Journal*, 65 (4), 823–838.

Caplan, B. (2001). Probability, common sense, and realism: A reply to Hülsmann and Block. *The Quarterly Journal of Austrian Economics* 4 (2), 69–86.

Caplan, B. (2003). Probability and the synthetic a priori: A reply to Block. *The Quarterly Journal of Austrian Economics* 6 (3), 77–83.

## What is Extreme about Mises' Extreme Apriorism?

Scott Scheall

**Draft as of 8/2/2016. Do not quote without author's permission.**

Doherty, B. (2007). *Radicals for capitalism: A freewheeling history of the modern American libertarian movement*. New York: Public Affairs.

Einstein, A. (1921). *Geometrie und Erfahrung*. Berlin: Springer.

Hands, D.W. (2001). *Reflection without rules: Economic methodology and contemporary science theory*. Cambridge: Cambridge University Press.

Hart, J. (2009). Machlup's misrepresentation of Hutchison's methodology. *Journal of Economic Methodology*, 16 (3), 325-340.

Hausman, D. (1992). *The inexact and separate science of economics*. Cambridge: Cambridge University Press.

Hayek, F.A. (1978a). Interview with Axel Leijonhufvud.

<https://ia801407.us.archive.org/18/items/nobelprizewinnin00haye/nobelprizewinnin00haye.pdf>

Hayek, F.A. (1978b). Interview with Leo Rosten.


<https://ia801407.us.archive.org/18/items/nobelprizewinnin00haye/nobelprizewinnin00haye.pdf>

Hayek, F.A. ([1941] 1992). Review of Mises's *Nationalökonomie*. In P.G. Klein (Volume Ed.); S. Kresge (Series Ed.), *The collected works of F.A. Hayek, vol. 4: The fortunes of liberalism, essays on Austrian economics and the ideal of freedom* (pp. 149-152). Chicago: The University of Chicago Press.

Hayek, F.A. ([1964] 1992). Review of Mises's *Epistemological problems of economics*. In P.G. Klein (Volume Ed.); S. Kresge (Series Ed.), *The collected works of F.A. Hayek, vol. 4: The fortunes of liberalism, essays on Austrian economics and the ideal of freedom* (pp. 147-149). Chicago: The University of Chicago Press.

Hayek, F.A. ([1988] 1992). Introduction to Mises's *Erinnerungen von Ludwig von Mises*. In P.G. Klein (Volume Ed.); S. Kresge (Series Ed.), *The collected works of F.A. Hayek, vol. 4: The fortunes of liberalism, essays on Austrian economics and the ideal of freedom* (pp. 153-159). Chicago: The University of Chicago Press.

Hayek, F.A. (1994). *Hayek on Hayek: An autobiographical dialogue*. (S. Kresge & L. Wenar, Eds.). Chicago: University of Chicago Press.

Hülsmann, J.G. (1999). Economic science and neoclassicism. *The Quarterly Journal of Austrian Economics*, 2 (4), 3–20. 

Hutchison, T.W. (1938). *The significance and basic postulates of economic theory*. London: Macmillan.

Hutchison, T.W. (1956). Professor Machlup on verification in economics. *Southern Economic*

## What is Extreme about Mises' Extreme Apriorism?

Scott Scheall

**Draft as of 8/2/2016. Do not quote without author's permission.**

*Journal*, 22 (4), 476-483.

Hutchison, T.W. (1981). *The politics and philosophy of economics: Marxians, Keynesians, and Austrians*. Oxford: Blackwell.

Hutchison, T.W. (1998). Ultra-deductivism from Nassau Senior to Lionel Robbins and Daniel Hausman. *Journal of Economic Methodology*, 5 (1), 43-91.

Jevons, W.S. ([1874] 1879). *The principles of science, vol. 1: A treatise on logic and scientific method*. London: MacMillan.

Keynes, J.N. ([1891] 1955). *The scope and method of political economy*. New York: Kelley & Millman.

Kirzner, I. (2001). *Ludwig von Mises*. Wilmington, NC: ISI Books.

Koppl, R.G. (2002). *Big players and the economic theory of expectations*. New York: Palgrave Macmillan.

Kurrild-Klitgaard, P. (2001). On rationality, ideal types and economics: Alfred Schütz and the Austrian school. *Review of Austrian Economics*, 14 (2/3), 119-143.

Lagueux, M. (1998). Apriorism. In J.B. Davis, D.W. Hands, & U. Maki (Eds.), *The Handbook of Economic Methodology* (pp. 17-22). Cheltenham, UK: Edward Elgar.

Lakatos, I. (1968). Criticism and the methodology of scientific research programmes. *Proceedings of the Aristotelian Society*, 69, 149-186.

Laudan, L. (1990). Demystifying underdetermination. In C. W. Savage (Ed.), *Scientific Theories* (pp. 267-297). Minneapolis: University of Minnesota Press.

Leeson, P. & Boettke, P. (2006). Was Mises right? *Review of Social Economy*, 64 (2), 247-265.

Machlup, F. (1955). The problem of verification in economics. *Southern Economic Journal*, 22 (1), 1-21.

Machlup, F. (1956). Rejoinder to a reluctant ultra-empiricist. *Southern Economic Journal*, 22, 483-493.

Maclean, G. (1980). Fritz Machlup's quasi-subjectivism: An uneasy marriage between Austrian economics and logical empiricism. *History of Economics Review*, 14 (1), 83-93.

Menger, C. (1963). *Problems of economics and sociology*. (L. Schneider, Ed.; A.J. Nock, Trans.). Urbana, IL: University of Illinois Press.

## What is Extreme about Mises' Extreme Apriorism?

Scott Scheall

**Draft as of 8/2/2016. Do not quote without author's permission.**

Menger, K. ([1936] 1979). Remarks on the law of diminishing returns: A study in meta-economics. In H.L. Mulder (Ed.), *Selected papers in logic and foundations, didactics, economics* (pp. 279-302). Dordrecht: D. Reidel Publishing Company.

Menger, K. (1994). *Reminiscences of the Vienna circle and the mathematical colloquium*. (L. Golland, B. McGuinness, and A. Sklar, Eds.) Dordrecht: Kluwer Academic Publishers.

Mill, J.S. (1967). In J.M. Robson (Ed.) *Collected works: Essays on economy and society* (Vol. 4). Toronto: University of Toronto Press.

Mises, L. (1940). *Nationalökonomie: Theorie des handelns und wirtschaftens*. Geneva: Editions Union.

Mises, L. (1962). *The ultimate foundation of economic science*. Princeton, NJ: D. Van Nostrand Company, Inc.

Mises, L. (1978). *Notes and recollections*. (H. Sennholz, Trans.). South Holland, IL: Libertarian Press.

Mises, L. ([1949] 1998). *Human action: A treatise on economics*. Auburn, AL: Ludwig von Mises Institute


Mises, L. ([1933] 2003). *Epistemological problems of economics*. Auburn: The Ludwig von Mises Institute.

Musgrave, A. & Pigden, C. Imre Lakatos. *The Stanford Encyclopedia of Philosophy* (Summer 2016 Edition). <http://plato.stanford.edu/archives/sum2016/entries/lakatos/>

Quine, W. V. O. (1951). Two dogmas of empiricism. *The Philosophical Review*, 60, 20–43.

Robbins, L. (1932). *An essay on the nature and significance of economic science*. London: Macmillan and Co.

Robbins, L. ([1932] 1935). *An essay on the nature and significance of economic science* (2<sup>nd</sup> ed.). London: Macmillan and Co.

Rothbard, M.N. (1957). In defense of 'extreme apriorism'. *Southern Economic Journal*, 23 (3), 314–320. 

Samuelson, P.A. (1972). In R.C. Merton (Ed.), *The collected scientific papers of Paul A. Samuelson*. (Vol. 3). Cambridge, Mass.: The M.I.T. Press


Scheall, S. (2015). Hayek the Apriorist? *Journal of the History of Economic Thought*, 37, 87-110.

Scheall, S. (2016). *Kinds of scientific rationalism: The case for methodological liberalism*. Unpublished manuscript.

## What is Extreme about Mises' Extreme Apriorism?

Scott Scheall

**Draft as of 8/2/2016. Do not quote without author's permission.**

Schulak, E.M. and Unterköfler, H. (2011). *The Austrian school of economics: A history of its ideas, ambassadors, and institutions*. Auburn, AL: Ludwig von Mises Institute. 

Senior, N.W. ([1826] 1827). *An introductory lecture on political economy: delivered before the University of Oxford on the 6<sup>th</sup> of December, 1826*. London: J. Mawman.

Senior, N.W. (1852). *Four introductory lectures on political economy*. London: Longman, Brown, Green, and Longmans.

Wicksteed, P. (1910). *The common sense of political economy including a study of the human basis of economic law*. London: Macmillian and Co.

Wieser, F. (1929). *Gesammelte abhandlugen*. (F.A. Hayek, Ed.). Tübingen: J. C. B. Mohr.

Wittgenstein, L. ([1949-1951] 1969). *On certainty*. (G.E.M. Anscombe and G.H. von Wright, Eds.; D. Paul and G.E.M. Anscombe, Trans.) Oxford: Basil Blackwell.

Zanotti, G. & Cachanosky, N. (2015). Implications of Machlup's interpretation of Mises's epistemology. *Journal of the History of Economic Thought*, 37, 111-138.