Final Draft

In Defence of Fallible Apriorism and The Aristotelian Program for Economics.

Rafe Champion, June 2010
rchampATbigpond.net.au

Now published in *Nuova civiltà delle macchine*, Vol. 1-2, 2011

In a collection of papers on Rothbard's development of the thoughts of von Mises.
The full collection can be found here.

"Man is not infallible...He can never be absolutely certain that his inquiries were not misled and that what he considers is certain truth is not error. All that man can do is to submit all his theories again and again to the most critical reexamination" (Mises)

“The real linchpin of my thought about human knowledge is fallibilism and the critical approach” (Popper).

“If a priori structures exist independent of the mind, then we have no good cause to expect that our knowledge of such structures will in every case have that sort of absolute evidence with which the Kantian a priori is normally associated. It thereby becomes possible to conceive a doctrine of what we might call fallibilistic apriorism” (Smith).

This paper argues that the best way to develop the economics of von Mises is along the lines of “fallible apriorism” rather than the strong program of apriorism advocated by Rothbard and his followers. This position is supported by Popper’s epistemology which can be described as “conjectural apriorism”. Barry Smith presented his views as a part of the Aristotelian framework that he detected in Menger’s work. This framework is practically identical to the “metaphysical research program” that Popper developed in dialogue with the physicists.

The outcome of the Popper/Smith program is a form of methodological monism that supports the main lines of the causal realist program initiated by Carl Menger.

Outline of the Argument

Salerno (2010) identified a movement in economics called “causal realism”, which was initiated by Menger and taken up by others including Clark, Fetter, Davenport, Wicksteed and Wicksell. The aim of causal realism is to find causal “exact laws” to account for cause and affect relationships between economic phenomena involving real markets, real people and real time. Salerno argued that Mises delivered major advances in epistemology and methodology, especially by refining the a priori approach. On Salerno’s account Rothbard was inspired by Mises to pursue the a priori method, not as a radical innovation but to recover the almost lost tradition of causal realism.

Causal realism is quite likely invaluable as an approach to all sciences, natural and human, but Mises left an ambiguous legacy with a mix of justificationism (strong apriorism) and the critical approach (critical rationalism). I will argue that the justificationist element that Rothbard took up is not essential to causal realism and is instead an impediment in two ways; first, to intellectual progress, because the method cannot deliver on its foundationalist claims; and second, to advancing good economics in the profession, because scholars in other schools are extremely reluctant to accept that strong apriorism is a legitimate method.

The purpose of apriorism for Mises and his followers is to distance economics from the natural sciences which are assumed to pursue the methods of empiricism and positivism. "The modern natural sciences owe their success to the method of observation and experiment. There is no doubt that empiricism and pragmatism are right as far as they merely describe the procedures of the natural sciences." (Human Action p. 32). Following the work of Popper it is apparent that empiricism, positivism and inductivism cannot account for the success of the natural sciences, so the project of methodological dualism is rendered problematic. To succeed, it will be necessary to provide new arguments to demonstrate that the human sciences cannot use the same logic of investigation and appraisal of theories that is practiced in physics. In the meantime economists and social scientists can be challenged to modify their approach in the Austrian/causal realist direction by an appeal to the methods of the natural sciences, as expounded by Karl Popper in his critique of positivism and logical empiricism.

Strong apriorism from Mises to Rothbard to Hoppe.

The main lines of Mises' apriorism are well known, though the element of tension between his critical attitude and his strong apriorism is not usually noted. The strong form of apriorism is apparent in his comparison with geometry, with all of the theorems implied in the axioms. Hence all the theorems of monetary theory are already implied in the concept of money and "The quantity theory does not add to our knowledge anything that is which is not virtually contained in the concept of money" (Human Action, p. 38).

"The starting point of praxeology is not a choice of axioms and a decision about methods of procedure, but reflection about the essence of action…" (Human Action, p. 39)

"From the unshakeable foundation of the category of human action praxeology and economics proceed step by step by means of discursive reasoning. …Precisely defining assumptions and conditions, they construct a system of concepts and draw all the inferences implied by logically unassailable ratiocination." (Human Action, p. 67)

Rothbard (1976) took the same stance.

"The fundamental axiom that individual human beings act, that is, on the primordial fact that individuals engage in conscious action towards chosen goals [in contrast with reflex or knee-jerk behaviour], furthermore, since praxeology begins with a true axiom, A, all the propositions that can be deduced from this axiom must also be true. For if A implies B, and A is true, then B must also be true."

He asserted that these propositions are justified because they are deduced from the axiom of purposeful action.

"Apart from the fact that these conclusions cannot be tested by historical or statistical means, there is no need to test them since their truth has already been established."

Hoppe (1995) went further to elaborate the philosophical underpinnings and to emphasize that the appropriate foundation is all-important.

"How do we find such axioms? Kant answers, by reflecting upon ourselves, by understanding ourselves as knowing subjects. And this fact - that the truth of a priori synthetic propositions derives ultimately from inner, reflectively produced experience - also explains why such propositions can possibly have the status of being understood as necessarily true. Observational experience can only reveal things as they happen to be; there is nothing in it that indicates why things must be the way they are. Contrary to this, however, writes Kant, our reason can understand such things as being necessarily the way they are" (1995, p. 8).

Thus it is claimed that economic propositions flow directly from our reflectively gained knowledge of action; and the foundational status of these propositions, the justification for

our confidence in their truth, derives from the axiom of action.

“It cannot be denied that this proposition is true, since the denial would have to be categorized as an action - and so the truth of the statement literally cannot be undone.” (ibid, p. 10).

“All of these categories - values, ends, means, choice, preference, cost, profit and loss, as well as time and causality - are implied in the axiom of action.” (ibid, p. 10)

“Provided there is no flaw in the process of deduction, the conclusions that such reasoning yield must be valid a priori because their validity would ultimately go back to nothing but the indisputable axiom of action…Such is the idea of economics as praxeology. *And such then is the ultimate disagreement that Austrians have with their colleagues. Their pronouncements cannot be deduced from the axiom of action* or even stand in clear-cut contradiction to propositions that can be deduced from the axiom of action. *And even if there is agreement on the identification of facts and the assessment of certain events as being related to each other as causes and consequences, this agreement is superficial. For such economists falsely believe their statements to be empirically well-tested propositions when they are, in fact, propositions that are true a priori*.” (ibid. p. 11, my italics).

This is a nice example of the doctrine of justification of propositions by the method of discovery (sometimes called the genetic fallacy), rather than assessing propositions on the basis of their performance, or simply their truth. This topic is taken up below in the Discussion.

Smith’s critique

Smith’s 1996 critique of “foundational apriorism” is included in this collection of papers. The background is the Aristotelian framework which informed Austrian philosophy and Menger’s economics (Smith, 1994 and 1996). Only the conclusions of the 1996 paper need to be noted here.

“If we wish to hold on to the view that all the propositions of praxeology are analytic in this sense, however, then we shall have to insist that the whole of praxeology can be erected on the basis of premises involving at most one single primitive non-logical concept”.

However there is “a veritable plenitude” of non-logical primitive concepts that turn out to be packed into the axiom of action.

“Certainly some of the concepts involved…may reasonably be counted as logical concepts; others may no less reasonably be conceived as being introduced by definitions formulated in terms of other, more primitive concepts. Consider, however, the concepts causation, relative satisfactoriness, reason, uneasiness, valuation, anticipation, means, ends, utilization, time, scarcity, opportunity, choice, uncertainty, expectation, etc. The idea that one could simultaneously and without circularity reduce every one of the concepts in this family to the single concept of action, that they could all be defined by purely logical means in terms of this one single concept, is decisively to be rejected.”

“The most worrying feature of Hoppe’s account is indeed that many of the most central propositions of praxeology itself will fall outside the scope of the synthetic a priori as he conceives it. ‘All the categories-values, ends, means, choice, preference, cost, profit and loss, as well as time and causality-are,’ he tells us, ‘implied in the axiom of action’. But how is this “implied” to be understood? As Hoppe correctly recognizes, it is not a matter of logical implication. Rather, he seems to argue, it is to be understood as follows: that any denial of a proposition for example relating preference to cost must be self-refuting. Let us suppose that this is true. Do we know that it is true because of what we know about the special action of denial, as Hoppe seems to suggest?”

“Or do we know that it is true because of what we know about preference and cost? Surely at least in part because of the latter; but then the appeal to actions of denial in the explication of a priori economic knowledge is at best insufficient, and at worst redundant.”

Tokumaru’s critique of the a priori

Tokumaru (2009) took up the claim that the theoretical social sciences can be based on the "category of human action". She identified four possible formulations.

1. **The category of action is an observational statement or a statement describing experiences from introspection**.

She suggests that Mises could have used singular observation statements (about the way that people evaluate situations and then act) as an empirical base to postulate social regularities by generalization. So he might have used a principle of induction (like the one he relied on in his account of the natural sciences) to make the leap from correct observations of individual instances of human action, to the universal statement of the action axiom.

The logical steps run:

First, premises in the form of singular statements in the form ‘At time t and location k there is a human who acts rationally to achieve an aim’.

Second, the fundamental proposition of regularity (principle of induction) ‘What is correctly observed in one case must also be observed in all other cases offering the same conditions.’

Conclusion (a strictly universal statement) ‘All humans act rationally to achieve aims’.

Tokamaru points out that this approach makes the axiom hostage to the inductive principle and hence not valid a priori.

2. **The category of action is a proposition about the basic ontological form of the social universe, describing its essential characteristics**.

In this formulation “Praxeological reality is not the physical universe, but man’s conscious reaction to the given state of this universe” (Human Action, p 92).

And “We do not want to discover a new method, but only to characterize correctly the method that is actually used in economics” (Mises, 1933, p. 18)

The deduction runs as follows:

Premise 1. Social knowledge exists (social knowledge is possible).

Premise 2. If social knowledge exists, humans exist who act rationally.

Conclusion. Humans exist who act rationally (there exists human action).

This line of argument depends on the validity of Premise 1 in all circumstances, meaning that it has to assume the status of a synthetic a priori, which begs the question of its own justification and thus leads to an infinite regress.

3. **The category of action is a definition, adopted as a convention**.

Indeed, Mises stated that “Action is, by definition, always rational” (1933, p. 3)

On this account the theorems of economics would be tautologies on a par with mathematics and logic, with all the content contained in the initial definitions. Clearly

Mises thought along this line some of the time, (when he compared monetary theory to geometry) and the same may be claimed for the axiom of action.

Tokumaru's critique of this approach plays on the incompatibility of the claim that the theorems of praxeology are both true a priori (and so are incapable of being refuted by any experience) and also convey precise knowledge of the real world.

On Tokumaru's account Mises resorted to pragmatic or instrumental arguments to explain the nature of descriptive theories which are definitions. She concludes that if Mises took this option he would have to settle for usefulness instead of truth as the criterion for acceptance of economic theorems. This is a position that can be defended but it is very different from the claims of Rothbard and Hoppe.

4. **The category of action is a methodological principle, of the kind required by methodological individualism**.

This is entirely consistent with Mises' aims, his principles and his practice. However methodological principles are normally regarded as conventions, to be accepted or rejected on the basis of their utility in advancing work to generate true descriptions and explanations of phenomena. Questions of truth and falsehood can arise, for example methodological individualism may be supported by refuting claims about group minds or the spirit of the age, however methodological principles cannot be claimed to be a priori truths.

Tokumaru concludes that none of the four formulations of the category of action justify claims to a priori truth.

Smith on "Fallible Apriorism"

Smith's explanation of fallible apriorism demonstrates the direction that the thoughts of Mises can be developed by following the critical position that he sometimes articulated. Smith drew a distinction between two forms of apriorism that he called impositionist and reflectionist (1990, section 5).

For the impositionist a priori knowledge is possible because it reflects forms and structures which the mind itself imposed or inscribed on the world. On this account we can obtain no direct knowledge of reality itself from outside, rather, our knowledge is a product of the logical structures of our mind (which is apparently the same as all the other minds).

"On the other hand are reflectionist views, which hold that we can have a priori knowledge of what exists, independently of all impositions or inscriptions of the mind, as a result of the fact that certain structures in the world enjoy some degree of intelligibility in their own right. The knowing subject and the objects of knowledge are for the reflectionist in some sense and to some degree pre-tuned to each other." (ibid).

The process of pre-tuning is not specified but in any case it cannot be assumed that the tuning is perfect, so our knowledge is fallible and is liable to be refuted and (possibly) corrected by interaction with the outside world. The fallible apriorist will suppose that there are true propositions "and that science strives to accumulate ever more of these: we do not however affirm that we know (or much less that we have certain knowledge about) which of the available candidates for such propositions are true among those which at any given time play a role in the really existing sciences". (ibid).

He explained that the fallibilistic doctrine of a priori laws provides a solution to the longstanding problem for proponents of the a priori, that is, how to make a choice between competing systems which all claim to have a priori foundations. This situation is hardly conceivable for those with non-fallibilistic theories based on one or other of the foundational epistemologies. Popper used the term "manifest truth" theories to describe schools of thought which presume that the truth is manifest if the appropriate method is used. He also suggested that one of the consequences of such a position is the

“conspiracy theory of ignorance” which attributes intellectual error to a process of deliberate deception by other people for ulterior motives(Popper, 1963, pp. 7-8).

“On the conception here defended, in contrast, the existence of such rival systems can be seen to be a perfectly natural and acceptable consequence of the just-mentioned difficulties we will often in fact face in coming to know even the intelligible traits of reality. One adjudicates between such systems in the same way, then, in which one adjudicates between all rival scientific hypotheses, namely via a complex mixture of empirical and a priori [logical] considerations.” (Smith, 1996).

Re-reading Popper

This brings us to the parallels between Smith and Popper on epistemology and the metaphysical and ontological framework. Popper can be described as a fallible or conjectural apriorist and the metaphysical framework that he formulated in his debate with the physicists is practically identical to the Aristotelian framework that Smith found in Menger (Smith, 1990, 1994, 1996).

The standard reading of Popper’s philosophy of science as “falsificationism” obscures most of the important features of his work, and especially the Austrian-Aristotelian elements. Re-reading of Popper is required to correct the errors that are propagated in the literature. Dozens of books describe Popper as a kind of positivist, partly because he persisted in critical dialogue with them [Footnote 1]. The textbook presentation of the philosophy of science typically begins with inductivism, then explains that Popper substituted falsification for verification, then some problems with “falsificationism” are identified, without reference to Popper’s counter-arguments, and he is put aside in favour of Lakatos, or Kuhn or some other more position (Chalmers, 1976; Hausman, 1992; Papineau, 1998).

Chalmers is a particularly persuasive and influential exponent of this approach. He used the following definition of falsificationism “Theories can be conclusively falsified in the light of suitable evidence…Theory rejection can be decisive. This is the factor that earns falsificationists their title” (Chalmers, 1975, p 57). Popper is the target but Popper wrote “In point of fact, no conclusive disproof of a theory can ever be produced”, for various reasons, including the Duhem problem, (Popper, 1959, p 50.) Clearly, Popper is not a falsificationist on that definition and close reading of a multitude of texts reveals that faults generally lie not with Popper’s position but with misrepresentations of it [Note 2].

To make the connection with apriorism, Popper can be read as a modified Kantian. This is how he described his agreement with Kant and how he modified Kant’s position (Popper, 1963, pp 190-192).

“Kant, like almost all philosophers and epistemologists right into the twentieth century, was convinced that Newton’s theory was true….But how to overcome the problem identified by Hume, that by way of our senses we have no direct access to the laws of nature, just to the appearances?”

“Kant’s solution of the problem is well known. He assumed, correctly I think, that the world as we know it is our interpretation of the observable facts in the light of theories that we ourselves invent. As Kant puts it: ‘Our intellect does not draw its laws from nature … but imposes them upon nature.’”

“I should therefore like to put it in the following modified form: ‘Our intellect does not draw its laws from nature, but tries – with varying degrees of success – to impose upon nature laws which it freely invents.’”

“The difference is this. Kant’s formulation not only implies that our reason attempts to impose laws upon nature, but also that it is invariably successful in this…Since Kant believed that it was our task to explain the uniqueness and the truth of Newton’s theory, he was led to the belief that this theory followed inescapably and with logical necessity from

the laws of our understanding. The modification of Kant's solution which I propose, in accordance with the Einsteinian revolution, frees us, from this compulsion. In this way, theories are seen to be the free creations of our own minds, the result of an almost poetic intuition, of an attempt to understand intuitively the laws of nature. But we no longer try to force our creations upon nature. On the contrary, we question nature, as Kant taught us to do."

The decisive step for Popper was a full-blooded "conjectural turn", to claim that even our best theories may be rendered problematic by new evidence, new criticisms and new theories. This anticipated the "hermeneutic turn" when appreciation of the theory-dependence of observations became more widespread in the wake of Kuhn and the modern French theorists.

To understand Popper it is necessary to take on board the "conjectural turn" which dates from 1935 with the original German version of *The Logic of Scientific Discovery* and some other moves as well. These include the "objectivist turn" to break with the obsession with the justification of beliefs and instead to focus on the strengths and weaknesses of theories that are stated in a public, inter-subjective or "objective" form. Then there is Popper's "social turn" to examine the function of institutions, traditions, conventions and "rules of the game" in science and society (Jarvie, 2000). And the "metaphysical turn" to the Aristotelian concept of "a world of propensities" that clearly connects with the framework which Smith identified in Menger's economics. (Smith, 1990 and 1994; Popper, 1982, especially the Metaphysical Epilogue) [Note 3].

It will help to explain more about each of these "turns", starting with the turn to conjectural objective knowledge. In traditional epistemology the central concern was (and remains) the justification of beliefs (Grayling, 1998). In "Epistemology without a knowing subject" Popper wrote

"This [traditional approach] has led students of epistemology into irrelevancies: while intending to study scientific knowledge, they studied in fact something which is of no relevance to scientific knowledge. For scientific knowledge simply is not knowledge in the sense of the ordinary usage of the words 'I know'. While knowledge in the senses of 'I know' belongs to what I call the 'second world', the world of subjects, scientific knowledge belongs to the third world, to the world of objective theories, objective problems and objective arguments…Thus my first thesis is that the traditional epistemology, of Locke, Berkeley, Hume, and even of Russell, is irrelevant, in a pretty strict sense of the word. It is a corollary of this thesis that a large part of contemporary epistemology is irrelevant also." (Popper, 1972, p.108).

In the course of explaining Popper's turn from "justificationism" to critical rationalism, Bartley pointed out that all attempts to justify beliefs end up in an infinite regress (Bartley, 1964 and 1984 in the Appendices to the revised edition). The alternative to the quest for justified beliefs is to form tentative critical preferences for theories (or policies) on the basis of their capacity to solve their problems and stand up to various forms of criticism, including experimental and practical tests.

Moving on to the "social turn", the discovery of the social factor in science studies is often attributed to Kuhn and the sociologists of knowledge, however Jarvie identified what he called the social turn in Popper's earliest published work (Jarvie, 2000). In the way that Hayek wrote about the constitution of liberty, Jarvie found in *The Logic of Scientific Discovery* the framework for a "constitution for science", that is, a set of conventions or rules to ensure that theories are exposed to criticism, especially empirical tests. Popper's focus on the institutional framework of science is explicit in the chapter on the sociology of knowledge in *The Open Society and its Enemies* and in the final sections of *The Poverty of Historicism* on situational logic and the institutional theory of progress.

"Beyond this logic of situations, or perhaps as a part of it, we need something like an analysis of social movements. We need studies, based on methodological individualism, of the social institutions through which ideas may spread and captivate individuals, of the way in which new traditions may be created, and of the way in which traditions work and

break down. In other words, our individualistic and institutionalist models of such collective entities as nations, or governments, or markets, will have to be supplemented by models of political situations as well as of social movements such as scientific and industrial progress. (A sketch of such an analysis of progress will be found in the next section.)" (Popper, 1957, p. 149).

Finally, the little-noticed metaphysical turn, possibly the most striking difference between the later Popper and the original logical positivists, whose signature idea was to render all talk of metaphysics strictly meaningless. Popper briefly mentioned the theory of metaphysical research programs in the autobiography written for the Library of Living Philosophers (Popper 1974, and 1976) but it was several years before it appeared in more detail in the Metaphysical Epilogue to the third volume of *The Postscript to the Logic of Scientific Discovery*.

"In almost every phase of the development of science we are under the sway of metaphysical - that is, untestable - ideas; ideas which not only determine what problems of explanation we shall choose to attack, but also what kinds of answers we shall consider as fitting or satisfactory or acceptable, and as improvements of, or advances on, earlier answers. By raising the problems of explanation, which the theory is designed to solve, the metaphysical research programme makes it possible to judge the success of the theory as an explanation...These programmes are only occasionally discussed as such: more often, they are implicit in the theories and in the attitudes and judgments of the scientists." (Popper, 1982, p. 161).

This approach has some points of similarity with Kuhn's paradigm theory but Popper's intention was to promote conscious and critical appraisal of the elements of rival programs instead of accepting uncritically the framework of the school of thought where the student is trained. Popper's theory pre-dated Lakatos's exposition of the methodology of scientific research programs but due to the delay in publication by Popper, the ideas of Lakatos inspired a generation of researchers in a debate over the rival merits of MSRP and paradigm theory. For Lakatos the "hard core" was not supposed to be subjected to criticism: this is a point of agreement with paradigm theory and it is the crucial point of disagreement with Popper's approach to the "core" of research programs.

Two points need to be made about Popper's theory of metaphysical research programs. First, it may be that the most distinctive elements of the Austrian program are at the level of philosophical or metaphysical presuppositions and these cannot be satisfactorily debated with the members of other schools where the anti-metaphysical background of positivism has rendered the presuppositions invisible or beyond rational discussion. Second, at the level of details, there is almost point for point agreement between the presuppositions of Poppers program and the Aristotelian ontology that Smith found at the core of Menger's economics.

The outcome of all these Popperian "turns" is support for Smith's "fallible apriorism" and for the Rothbardian program of causal realism, the quest for 'exact laws', which are universal and explain economic phenomena such that wherever certain "initial conditions" apply, certain effects will follow. This is precisely the mode of explanation in the natural sciences, though in complex (realistic) situations the laws will predict tendencies rather than precise outcomes due to the multiplicity of factors at work and the impossibility of getting a full account of the initial conditions. More precision can be obtained in stable and isolated systems like the solar system and experimental models (Popper 1957, sections 27 to 29).

On this reading of Popper there are many points of contact between Mises and Popper, as indicated by Di Iorio (2008)

"…the primacy of theory compared to experience; the anti-instrumentalist or realist conception of science; the fact that empirical theories rest on non-empirical presuppositions…methodological individualism; the criticism of scientism, inductivism and holism in social sciences "

Discussion

It is important to note the pervasive influence and durability of presuppositions and framework assumptions that are shared by schools of thought that are rivals in other respects. Such is the case with the epistemological doctrine of justification of belief on the basis of sources or methods of discovery and proof. A classical case is the rivalry between empiricism and classical rationalism (or intellectualism), between the evidence of the senses and the intuition of clear and distinct ideas.

Newton looked like the game-breaker for the empiricists ("I feign no hypothesis") and it was widely accepted that the inductive method had decisively proved itself. Consequently science became Science. Where previously the term "science" was applied to any body of organised information, and to be "scientific" was to be systematic in pursuit of any activity from angling to archeology, now Science and the Inductive Method set new standards of excellence in intellectual endeavours.

One result was a kind of "cargo cult" mentality, with scientists copying those "inductive" activities which are supposed to deliver scientific results. This is a reference to the cargo cults of Melanesia after WW2 when the natives who had seen aircraft loaded with goods arrive at landing strips carved out of the jungle, would copy the actions of the visitors as best they could in the hope that more cargo would arrive. So for some years in the 1970s every secondary school student in the Australian state of New South Wales could read in the prescribed textbook "Science advances in a definite pattern. First and foremost scientists must make observations. These observations must be careful and accurate; and the results of more and more observations accumulate".

Hume introduced serious doubts about induction but this had little effect on working scientists. In contrast, there were major implications among philosophers and so the empiricists set off on the long march to save inductive logic and Kant responded in a very different way, as we have seen. In each case the objective is to justify some kind of foundational source that authenticates the product, ideally a warrant of certainty, but failing that something as close as possible, in the case of the inductivists this is a numerical probability value.

In this situation a theory of conjectural knowledge is not regarded as a genuine or serious theory of knowledge at all. However the stance articulated by Smith and Popper is entirely appropriate for working scientists because it directs attention "out the window" to the phenomena that we want to understand and the problems that we are trying to solve. In place of a warrant issued by an authority, there will be "critical preferences" based on multiple criteria: the capacity of the theory to solve the problem; its capacity to stand up to criticism, especially the tests of evidence and practical application; the ability of the theory to integrate different areas of investigation and to inspire productive research programs.

For the benefit of economists who are interested in the programmatic implications of Popper's ideas, Boland has sketched a four-point Popper-Hayek program in Chapter 15 of *The Foundations of Economic Method* (Boland, 2003). The elements of the program are (1) Anti-justificationism, (2) Anti-psychologism, (3) Rational decision-making (according to the logic of the situation) and (4) Situational dynamics (behavior can change as a result of learning as well as from changes in the situation).

Conclusions

Following Popper, it seems that the methods of the natural sciences cannot usefully be regarded as positivism or empiricism. They are closer to the Aristotelian, causal realist position expounded by Barry Smith in his exegesis of Menger's economics. This means that people doing good economics can simply claim that the best argument for a theory is its capacity to provide explanations and understanding of economic phenomena, and to stand up to various forms of criticism. Austrians do not need to insist that the validity of their economics depends on a special method which is quite different from the methods of the natural sciences. And it can be argued that those economists who are trying to

emulate the methods of positivism and empiricism are on the wrong track, but not for the reasons claimed by the Austrians who advocate strong apriorism.

NOTES

The quotes at the beginning come from Human Action, page 68, from Realism and the Aim of Science, page xxxv and from Austrian Philosophy. The Legacy of Franz Brentano, page 333.

Note 1. In contrast to Popper's lifelong dialogue with the positivists, he refused to be drawn into arguments with the various schools of "linguistic philosophy', citing an old saying "when your enemy is drowning in a swamp, you do not jump in with a knife to stab him".

Note 2. Chalmers repeated the same definition in the 1982 edition of the book and in the 1999 edition it is revised but the text still conveys the misleading impression that Popper's position is fundamentally defective. This book is probably the most widely read introductory text in the field and it has been translated into several foreign languages. That critique of Popper has apparently become canonical and it was repeated recently by McGrew et al "There can, therefore, be no such decisive refutation of a theory as Popper suggests" (McGrew et al, 2009, p 461.)

Another example is Hausman (1984, 1994, 2008), writing on the philosophy of economics. He claimed that a problem with Popper's falsificationism was the notion that an apparently falsified theory should be dropped forthwith (with no excuses). This claim stood from 1984 in the first edition to 2008 in the third edition. In fact, Popper wrote "I have always stressed the need for some dogmatism: the dogmatic scientist has an important role to play. If we give in to criticism too easily we will never find where the real power of our theories lies" (Popper, 1974, p. 55).

REFERENCES

Bartley, W. W. (1964). Rationality Versus the Theory of Rationality, in M Bunge (ed), Criticism and the Growth of Knowledge, New York, The Free Press of Glencoe, .
Bartley, W. W. (1984). The Retreat to Commitment, La Salle, Illinois, Open Court.
Boland, L. (2003). The Foundations of Economic Method: A Popperian Perspective, London, Routledge.
Chalmers, A. F. (1976). What is this thing called science? St. Lucia, University of Queensland Press. Revised, 1982, 1999.
Di Iorio, F. (2008). Apriorism and Fallibilism: Mises and Popper on the Explanation of Action and Social Phenomena, Nuova Civilta delle Macchine, xxvi (4): 5-32.
Grayling, A. C. (1998) "Introduction to Epistemology", in Philosophy 1: A Guide Through the Subject, ed. A. C. Grayling, London, Oxford University Press.
Hausman, D. M. (1984). Introduction, The Philosophy of Economics, (ed. D. M. Hausman). Cambridge, Cambridge University Press.
Hausman, D. M. (1992). The Inexact and Separate Science of Economics. Cambridge, Cambridge University Press.
Hausman, D. M. (1994). Introduction, The Philosophy of Economics, (ed. D. M. Hausman). Cambridge, Cambridge University Press.
Hausman, D. M. (2008). Introduction, The Philosophy of Economics, (ed. D. M. Hausman). Cambridge, Cambridge University Press.
Hoppe, H-H. (1995). Economic Science and the Austrian Method, Auburn, Alabama, Ludwig von Mises Institute.
McGrew, T, Alspector-Kelly, M & Allhoff, F. (eds), (2009), Philosophy of Science: An Historical Anthology, Chichester West Sussex, Wiley-Blackwell,
Mises, von L. (1933). Epistemological Problems of Economics, trans G. Reisman, Princeton, NJ, Van Nostrand (1960).
Mises, von L. (1966). Human Action: A Treatise on Economics. Auburn Alabama, Ludwig von Mises Institute.

Papineau, D. (1996). “Methodology: The Elements of the Philosophy of Science”. In Philosophy 1: A Guide Through the Subject, ed. A. C. Grayling, London, Oxford University Press.
Popper, K. R. (1957). The Poverty of Historicism. London, Routledge & Kegan Paul.
Popper, K. R. (1959). The Logic of Scientific Discovery. London, Hutchinson & Co.
Popper, K. R. (1963). Conjectures and Refutations: The Growth of Scientific Knowledge. London, Routledge & Kegan Paul.
Popper, K. R. (1972). Objective Knowledge: An Evolutionary Approach. London, Oxford University Press.
Popper, K. R. (1974). Autobiography of Karl Popper, in The Philosophy of Karl Popper (ed. P. A. Schillp), La Salle, Illinois, Open Court.
Popper K. R. (1976). Unended Quest: An Intellectual Autobiography. Glasgow, Fontana/Collins.
Popper, K. R. (1974). “Normal Science and its Dangers” in Criticism and the Growth of Knowledge (eds. I. Lakatos and A. Musgrave), Cambridge University Press, Cambridge University Press.
Popper. K. R. (1994). Models, Instruments and Truth: The Status of the Rationality Principle in the Social Sciences”, in The Myth of the Framework: In Defence of Science and Rationality, (Ed. M. A. Notturno). London, Routledge.
Popper, K. R. (1982). Quantum Theory and the Schism in Physics. London, Hutchinson & Co.
Popper, K. R. (1983). Realism and the Aim of Science. London, Hutchinson & Co.
Rothbard, M. N. (1976). “Praxeology: The Methodology of Austrian Economics” in The Foundations of Modern Austrian Economics, (ed. Edwin G. Dolan), Kansas City, Sheed & Ward.
Salerno, J. T. (2010). Menger’s Causal-realist Analysis in Modern Economics, Review of Austrian Economics, 23 (1):1-14.
Smith, B. (1990). Aristotle, Menger, Mises: An Essay in the Metaphysics of Economics. History of Political Economy, Annual Supplement to vol. 22 (1990): 263-288.
Smith, B. (1994). Austrian Philosophy. The Legacy of Franz Brentano. Chicago and LaSalle, Illinois, Open Court Publishing Company.
Smith, B. (1996). In Defense of Extreme (Fallibilistic) Apriorism. Journal of Libertarian Studies, 12: 179-192.
Tokumaru, N. (2009). Popper’s Analysis of the Problems of Induction and Demarcation and Mises’ Justification of the Theoretical Social Sciences. In Rethinking Popper, (eds. Z. Parusnikova & R. S. Cohen), Boston, Springer. Pp. 161-174.

Entry to the Site Full Index of papers Popper papers