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Anti-Psychologism in Economics: Wittgenstein and Mises*

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Abstract. Ludwig Wittgenstein's arguments for the conclusion that whatever counts as *thought* must embody *logical* principles can likewise be deployed to show that whatever counts as *action* must embody *economic* principles, a conclusion which in turn provides the basis for a defense of Ludwig von Mises' controversial claim that the laws of economics are *a priori* rather than empirical. The Wittgensteinian approach also points the way toward a transcendence of the intractable disputes among present-day Austrians over formalist versus hermeneutical, analytic versus synthetic, and impositionist versus reflectionist interpretations of economic method.

Key Words: Ludwig Wittgenstein, Ludwig von Mises, anti-psychologism, praxeology

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1. The Problem of Praxeology

According to Ludwig von Mises (1881–1973), the basic principles of economics are not empirical but *a priori*; the laws of economics are conceptual truths, and economic truth is grounded in the science of *praxeology*: the study of those propositions concerning human action that can be grasped and recognized as true simply in virtue of an inspection of their constituent concepts.

The praxeological approach has always been a hard sell. We live in an empirical age, in which claims to *a priori* knowledge are regarded with suspicion. Mises' *a priori* derivation of the laws of economics can easily strike us as a piece of rationalistic dogmatism, on a par with the claims of Descartes and Kant to have derived the laws of physical motion *a priori.* Blaug's (1992) negative judgment illuminatingly expresses the temper of our time: "Mises' statements of radical apriorism are so uncompromising that they have to be read to be believed"; they "smack of an antiempirical undertone . . . that is wholly alien to the very spirit of science," and are "so idiosyncratically and dogmatically stated that we can only wonder that they have been taken seriously by anyone" (80–81).

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I shall argue, however, that the praxeological approach is fully defensible, and that its legitimate claim to philosophic respectability can be restored by seeing praxeology as an application to economics of the critique of psychologism offered by Gottlob Frege (1848–1925) and Ludwig Wittgenstein (1889–1951), two thinkers whose work launched the analytic tradition in contemporary philosophy. Wittgenstein in particular, I shall maintain, holds the solution to many of the recent disputes over praxeology within the tradition of Austrian economics.

2. From Mises to Frege

Wittgenstein was deeply influenced by Frege; Mises does not seem to have read Frege, but he was arguably influenced by him indirectly, through Husserl.[1] In any case, Mises and Frege shared a common passion—to defend the universal and timeless character of logic.

At the time when Mises was developing his ideas, the notion of a universally valid economic science was under attack from both the left and the right; and many such critics bolstered their position by assailing the notion of a universally valid logic as well. According to this position, which Mises labeled *polylogism*, the principles of logic vary from one nation, race, class, or historical era to another, and *therefore* the principles of economics must do so as well. The rising totalitarian movements of the time, both communist and fascist, found polylogism an appealing doctrine, because it allowed them to dismiss criticisms from liberal economists as based on a logic restricted in its applicability to, for example, an English, Jewish, bourgeois, or capitalist social context.

The evidence offered in favour of polylogism consisted mainly of pointing out the difference in the *contents* of the thoughts of different groups. To this Mises offers a twofold reply: first, that these differences in content are largely exaggerated, and second, that even where there *are* significant differences in content between the thoughts of different groups, this does nothing to support the claim that they think in accordance with different principles of logic (Mises 1996:36–38).

Mises' insistence on the universal validity of logic was shared by Frege. The primary target of Frege's criticism, however, was not polylogism, but rather, psychologism—the view that the laws of logic and mathematics are simply empirical generalizations about the way the human mind works. John Stuart Mill, for example, had maintained that our knowledge that $2 + 2 = 4$ is an inductive generalization from our experience that when we take two groupings, each with the characteristic look of a twosome, and we put them next to one another, we see a grouping with the characteristic look of a foursome—a view Frege dismissed as "gingerbread and pebble arithmetic," remarking that it was lucky for Mill that not everything is nailed down (Frege 1997:88, 94). And Mises likewise speaks disapprovingly of "Mill's psychologistic epistemology, which ascribed an empirical character even to the laws of thought" (Mises 1976:22), and maintains that "[u]nder the influence of Mill's empiricism and psychologism, logic was not prepared for the treatment of the problems that economics presents to it" (Mises 1976:ix).

For Frege, the fundamental blunder of psychologism is that it confuses *being* true with being *regarded* as true. Logical entailment is truth-preserving; if p is true, and p logically

entails q, then q must be true as well. But if logic is simply a description of how our minds work, then to say that p entails q is simply to say that that if you believe p, that will cause you to believe q. But from the fact that p is true and that believing p tends to cause believing q, one cannot infer anything about the truth of q (Frege 1997:248–250, 325–326).

Psychologism does not entail polylogism; one can be a psychologician[2] and think that there is, as a matter of fact, one universal logic that applies to all human beings, or even to all rational beings. But psychologism opens the door to polylogism. For on the psychologistic hypothesis, the universality of logic will simply be an inductive generalization, and so a contrary instance cannot be ruled out *a priori*. If logic simply describes the causal relations among our thoughts, then for all we know there might be different sorts of creatures whose thoughts are causally related in entirely different ways—whose operating systems are different, as it were. Frege is well aware of the polylogistic implications of psychologism, and explicitly condemns them, particularly in their historicist form (Frege 1997:88, 258–350).

But in disposing of psychologism, has Frege disposed of the kind of polylogism that worries Mises? Not necessarily. We can distinguish between *normative* and *descriptive* versions of polylogism. According to normative polylogism, every group has its own logic, but they're all correct; each group's logic is valid *for that group*. (In recent times this version of polylogism has been resurrected, or at least re-animated, by the postmodernists.) According to descriptive polylogism, different principles of logic describe the thinking of different groups, but it does not follow that all these different logics are equally valid; one might well be right and all the others wrong.

Frege's distinction between being true and being regarded as true is a good argument against normative polylogism, but does nothing to undermine descriptive polylogism. The descriptive polylogist can happily say that the laws of regarding-as-true differ from one group to another, even if the laws of truth are universal. And Frege in fact recognizes this. For Frege, the laws of logic are *normative* for thought because they are *descriptive* of reality; but *they are not descriptive of thought*: "Logic is concerned with the laws of truth, not with the laws of holding something to be true, not with the question of how people think, but with the question of how they must think if they are not to miss the truth" (Frege 1997:201–203, 250). But if logic is only normative, not descriptive, with regard to thought, then the possibility of thought that contravenes logic is thereby countenanced. Frege calls the laws of logic "boundary stones set in an eternal foundation, which our thought can overflow but not dislodge" (203); but if thoughts can "overflow" the boundary stones of logic, then there is no necessary isomorphism between our human patterns of inference and the timelessly valid relations of entailment. Yet if our thinking can occasionally depart from logic, might there not be other people whose thinking so departs even more radically and systematically? Frege admits this possibility:

> But what if beings were even found whose laws of thought directly contradicted our own and therefore frequently led to contrary results in practice as well? The psychological logician could only simply acknowledge this and say: those laws are valid for them, these for us. I would say: here we have a hitherto unknown kind of madness. Anyone who understands logical laws as prescribing how one should think, as laws of *being true*, not as natural laws of human beings' *holding as true*, will ask: who is right? Whose

> laws of *holding as true* are in accord with the laws of *being true*? The psychological logician cannot ask this, since he would thereby be recognizing laws of *being true*, which would not be psychological (203).

The fact that Frege describes such illogic as a hitherto *unknown* kind of madness shows that he thinks descriptive polylogism is *in fact* false; humans of every group and in every epoch do, for the most part, conform in their thinking to the one true logic. But he does not claim to dismiss the *possibility* of some Bizarro world where illogical thought is the norm. The target he wishes to attack is not descriptive polylogism but normative polylogism. From Frege's point of view, the truth or falsity of descriptive polylogism is simply a psychological or sociological question irrelevant to his project.

We might wonder whether Frege is justified in taking the prospect of descriptive polylogism with such equanimity. If what laws of logic people recognize and follow is determined not by the nature of reality but rather by their group membership, might that not undercut our own certainty in the laws of logic that *we* recognize and follow? If every group has its own way of thinking—which of course will strike members of that group as the one true way—shouldn't that lead us to view with greater suspicion our conviction that *our* way of thinking really *is*, providentially, that one true way?

Frege thinks not. On his view, if we can't help thinking in accordance with our own logic, then we can't seriously entertain the possibility that it is incorrect:

> [The] impossibility of our rejecting the law [of identity] does not prevent us from supposing that there are beings who do reject it; but it does prevent us from supposing that these beings are right in doing so; it also prevents us from doubting whether we or they are right. At least this goes for me. If others dare to recognize and doubt a law in the same breath, then it seems to me like trying to jump out of one's skin, against which I can only urgently warn (204).

So is it really impossible for us to doubt our own logic, or is it an all-too-possible mistake against which we need to be warned? Frege seems of two minds on the question.

Perhaps Frege's project does not require the dismissal of descriptive polylogism. But Mises' does.

Mises is attempting to do for economics what Frege wants to do for logic and mathematics—namely, to *de-empiricize* and *de-psychologize* the subject.[3] De-empiricizing it involves establishing that the fundamental laws of economics are already implicit in the very concept of action itself (Mises 1976:12–17, 1985:305–309, 1996:75–76). De-psychologizing it involves drawing a line of demarcation between the *a priori* and empirical aspects of social science. The *a posteriori* aspects are in turn subdivided into those that gather information through scientific experiment and those that seek insight through hermeneutic understanding (*verstehen*). Psychology, for example, is divided into *thymology*,[4] the study of spirit, and naturalistic psychology, the study of reflexes. But both are to be sharply distinguished from praxeology, which abstracts from psychological content (Mises 1985:264–272). Understanding (*verstehen*) is the hermeneutical method of thymology; while it is not *narrowly* empirical in the manner of the experimental sciences, it still

depends on experience. But the *a priori* grasp of a conceptual truth transcends experience altogether. In Mises' words: "We must conceive, not merely understand" (Mises 1996:487).

But the claims of praxeology presuppose that human beings think and act logically. If they do not, then nothing would prevent them from applying the first unit of a good to the ninth most urgent want, thus falsifying the law of diminishing marginal utility (Mises 1996:120–127; cf. Rothbard 1993:63–64), and so forth. Frege's refutation of normative polylogism is not enough. The entire enterprise of praxeology assumes the falsity of *descriptive* polylogism as well. Yet nothing Frege has said seems to rule out descriptive polylogism; and Mises seems to open the door to it as well. For Mises grants that there might once have been creatures with logics contrary to our own. Since their logics were mistaken, they perished; and Mises appeals to the practical survival value of correct logic to explain why it was selected for by evolution:

> Those primates who had the serviceable categories survived, not because, having had the experience that their categories were serviceable, they decided to cling to them. They survived because they did not resort to other categories that would have resulted in their own extirpation.[5] (Mises 1962:4–6.)

But if deviant logics are a possibility after all, it seems rash to conclude that by now they must all have been weeded out by the survival of the fittest. Perhaps they are not dead only because it is not yet the long run. Not every departure from logic need bring instant extinction. Until the spectre of descriptive polylogism has been laid to rest—a task neither Frege nor Mises appears to have accomplished—their eloquent critique of normative polylogism will not suffice to guarantee the existence of that common logical structure of human action to which praxeology must appeal.

3. From Frege to Wittgenstein

This is where Wittgenstein enters the picture.[6] Wittgenstein inherits Frege's critique of psychologism; but, unlike Frege, he believes that illogical thought is impossible. This view shows up already in his first book, the *Tractatus Logico-philosophicus*:

> Thought can never be of anything illogical, since, if it were, we should have to think illogically. . . . It used to be said that God could create anything except what would be contrary to the laws of logic. —The truth is that we could not *say* what an 'illogical' world would look like. . . . It is as impossible to represent in language anything that 'contradicts logic' as it is in geometry to represent by its coordinates a figure that contradicts the laws of space or to give the coordinates of a point that does not exist.. . .
>
> In a certain sense, we cannot make mistakes in logic. . . . [L]anguage itself prevents every logical mistake.—What makes logic a priori is the *impossibility* of illogical thought. (Wittgenstein 1961:11, 47.)

But Wittgenstein elaborates it most fully in his later works, and above all in his two books on the foundations of mathematics.

> The question is whether we should say we cannot think except according to [the laws of logic], that is, whether they are psychological laws—or, as Frege thought, laws of nature. He compared them with laws of natural science (physics), which we must obey in order to think correctly. I want to say they are neither. (Wittgenstein (1976:230.)

> Frege says . . . "here we have a hitherto unknown kind of insanity"—but he never said what this 'insanity' would really be like. (Wittgenstein 1983:95.)

Wittgenstein's position is that logic is neither an empirical regularity that thought happens to follow nor a commandment that thought ought to follow. On both those views, people whose thinking is governed by Bizarro logic are *conceivable*, and this is just what Wittgenstein denies. Logic is *constitutive* of thought. Nothing counts as thought unless it is logical. Hence the term "thought" is simply not applicable to anything that deviates from logic. Frege never said what such insanity would be like, because the scenario Frege is asking us to imagine cannot be described without incoherence.

> What is the difference between inferring wrong and not inferring? Between adding wrong and not adding? (Wittgenstein 1983:352.)

> The steps which are not brought into question are logical inferences. But the reason why they are not brought into question is not that they 'certainly correspond to the truth'—or something of the sort,—no, it is just this that is called 'thinking', 'speaking', 'inferring', 'arguing'. (Wittgenstein 1983:96.)

Here we might be puzzled. Surely people think illogically all the time! Well, that depends on exactly what sense is to be given to the phrase "think illogically." Don't people often make the logical mistake of affirming the consequent? Certainly the mistake we call affirming the consequent often happens; but how is it to be understood? Do I really infer "p" from the premises "If p then q" and "q"? To be sure, I think or say the premises, and I pass to the conclusion. But is this an inference, and if so, what is the nature of that inference? I may very well *imagine* that I have inferred this conclusion from these premises, but I may be wrong. I am not necessarily a privileged expert on what rule I am really following. Perhaps there was no inference at all; the relation between my belief in the premises and my belief in the conclusions was merely a casual one. Not every causal relation among beliefs is an inference: seeing Eric chewing on his shoe may remind me that I need to buy new shoes, but I do not infer the proposition "I need to buy new shoes" from the proposition "Eric is chewing on his shoe." (Not every transition from one thought to another is itself an instance of thought.) And a non-inferential causal relation between two beliefs does not magically become an inference simply because I have a subjective conviction that it was an inference. On the other hand, it might really be an inference, but not the one I take it to be. I may imagine that I relied on just these premises alone—"If p then q" and "q"—in order to infer "p," but perhaps I was really relying on an additional premise without realizing it: something like, say, "If (if p then q) then (if q then p)." Wittgenstein is not making the *psychological* claim that every transition from one thought to another is a legitimate logical inference; rather, he is making what he would call the *grammatical* claim, and Mises might

call the *praxeological* claim, that only those transitions that obey the laws of logic are to be counted as inferences:

> "Then according to you everybody could continue the series as he likes; and so infer *any*how!" In that case we shan't call it "continuing the series" and also presumably not "inference." And thinking and inferring (like counting) is of course bounded for us, not by an arbitrary definition, but by natural limits corresponding to the body of what can be called the role of thinking and inferring in our life. [T]he laws of inference do not compel him to say or write such and such like rails compelling a locomotive. And if you say that, while he may indeed *say* it, still he can't *think* it, then I am only saying that that means, not: try as he may he can't think it, but: it is for us an essential part of 'thinking' that—in talking, writing, etc.—he makes *this sort* of transition. (Wittgenstein 1983:80.)

The logical "must" is neither a causal "must" compelling us from within nor an imperative "must" threatening us from without:

> "You admit *this*— then you must admit *this* too."—He must admit it—and all the time it is possible that he does not admit it! You want to say: "if he *thinks*, he must admit it." (Wittgenstein 1983:57.)

Indeed, it is just *when* he admits it that he counts as thinking.

But how is Wittgenstein's reply to Frege relevant to Mises' project of finding an *a priori* basis for economics? True, it does allow us to rule out the possibility of descriptive polylogism. People are not always thinking; but whenever we are thinking, we are thinking logically. But Mises' concern is with *action*. If all action is thoughtful, then all action is logical. But what if all action is not thoughtful?

In this connection, it is significant that Wittgenstein offers an *economic* example to illustrate his agreement and disagreement with Frege:

> People pile up logs and sell them, the piles are measured with a ruler, the measurements of length, breadth, and height multiplied together, and what comes out is the number of pence which have to be asked and given. They do not know 'why' it happens like this; they simply do it like this: that is how it is done. . . . Very well; but what if they piled the timber in heaps of arbitrary, varying height and then sold it at a price proportionate to the area covered by the piles? And what if they even justified this with the words: "Of course, if you buy more timber, you must pay more"? . . . How could I shew them that—as I should say—you don't really buy more wood if you buy a pile covering a bigger area?—I should, for instance, take a pile which was small by their ideas and, by laying the logs around, change it into a 'big' one. This might convince them—but perhaps they would say: "Yes, now it's a *lot* of wood and costs more"—and that would be the end of the matter.—We should presumably say in this case: they simply do not mean the same by "a lot of wood" and "a little wood" as we do; and they have a quite different system of payment from us. (Wittgenstein 1983:93–94.)

Wittgenstein's example of the wood-sellers is an example of people who *appear* to be economically irrational. Their behaviour seems to violate praxeological principles; their preferences seem incoherent.

Why do the wood-sellers seem irrational? Consider: I could buy a tall, narrow pile of wood from them for a low price, rearrange it, and then resell it to them at a high price. How can they guard against being exploited in this manner? For that matter, if they can get a higher price for short, wide stacks than for tall, narrow ones, why don't they rearrange their own narrow stacks and sell them at the higher price? From an economic standpoint, if they know that the less valuable stacks can be transformed into the more valuable ones by means of simple rearrangement, then the less valuable stacks are a higher-order or producer's good, a means of producing the more valuable stacks, and the value of the end should be imputed back to the means (Mises 1996:200, 333–335). So the difference in price between the wide stacks and the narrow ones should dwindle until the price one is willing to pay for a narrow stack equals the price one would pay for a wide stack minus whatever utility is lost in the effort of rearranging the stack. Suppose most people are willing to pay no more than $5 to avoid the hassle of having to rearrange the stack. Then, if they are rational, they should not be willing to assign more than $5 worth of difference between the two stacks. Suppose two stacks, equal in (what we would call) quantity of wood, are being offered for sale, the narrow one at $100 and the wide one at $200. Why should anyone buy the wide one? The cost of choosing the narrow one and then rearranging it into the preferred type of stack is $100 for the wood plus the psychic equivalent of $5 for the labour—still a savings of $95. Every rational person will choose the narrow stack over the first. Sellers of wide stacks will have to lower their price to $105 or less before they can compete with the sellers of narrow stacks. If that is not what happens, then people have not acted in accordance with their presumed preferences. If the wood-sellers really prefer wide stacks to narrow ones, and more money to less, then their pricing practices are irrational.

But Wittgenstein does not leave the matter there. Our interpretation of the wood-sellers' behaviour as irrational presupposes that we have correctly identified their preferences. But have we? We see that they hand over a greater quantity of coins in exchange for large stacks and a smaller quantity in exchange for small ones; they may call these coins "money" and these exchanges "buying" and "selling"; and if they mean what we mean by those terms than we shall assume that, *ceteris paribus,* they prefer more money to less. But first of all, *ceteris* are not always *paribus*; human beings do not always act to maximize their financial returns:

> We might call this a kind of logical madness. But there is nothing wrong with giving wood away. So what is wrong with this? (Wittgenstein 1976:202.)

Whether the wood-sellers are acting irrationally—whether they are instances of Fregean insanity—depends on whether their preferences are incoherent, and that depends on what their preferences are. The very fact that they are acting as they are suggests that, in this case at least, they are not trying to maximize their stock of coins. Given the right preferences, it can be rational to give away what I could sell for money, or to give away money itself. So why not to buy or sell at a loss?

I may pay more money for a meal in a restaurant than it would cost me to make the same meal for myself at home, even when the psychic cost of the labour involved in making the meal does not outweigh the amount of money I would save. Why do I do it? There could be all sorts of reasons. I may like the atmosphere of the restaurant. It may be more convenient than going home. I may want to talk to the people who are there. Maybe I know that 10% of the restaurant's profits go to some cause I want to support. I'm not just paying for the food, I'm paying for a total package involving the food and other goods (Mises 1976:88). Who knows why the wood-sellers act as they do? Perhaps it is a ritual that gives them pleasure. Perhaps it is a habit that had its origin in mistaken beliefs about measurement but has outlasted those beliefs because they are traditionalists and experience psychic discomfort in departing from habit. Perhaps they are getting pleasure from confusing the anthropologists who are observing them. As long the benefit they are getting from the practice exceeds the cost, where is the irrationality?

> Suppose I gave you a historical explanation of their behaviour: (a) These people don't live by selling wood, and so it does not matter much what they get for it. (b) A great king long ago told them to reckon the price of wood by measuring just two dimensions, keeping the height the same. (c) They have done so ever since, except that they later came not to worry about the height of the heaps. Then what is wrong? They do this. And they get along all right. What more do you want? (Wittgenstein 1976:204.)

Hence the wood-sellers are not a counterexample to praxeological principles, even if we assume that their coins really are money. And of course the latter assumption too may be questioned:

> Imagine people who used money in transactions; that is to say coins, looking like our coins, which are made of gold and silver and stamped and are also handed over for goods—but each person gives just what he pleases for the goods, and the merchant does not give the customer more or less according to what he pays. In short this money, or what looks like money, has among them a quite different role from among us. We should feel much less akin to these people than to people who are not yet acquainted with money at all and practise a primitive kind of barter.—"But these people's coins will surely have a purpose!"—Then has everything that one does a purpose? Say religious actions—. (Wittgenstein 1983:95.)

What makes something money is not that it is round and metallic. Rather, what makes it money is the fact that people *regard* and *use* it as money. Now one need not *always* prefer more money to less; as we have seen, there is nothing wrong with giving things away. But money is a medium of indirect exchange; when it ceases to be that, it ceases to be money. Now I need not be using it as a medium of exchange at all times; I can use a dollar bill as a bookmark, I can use coins to do magic tricks with, and so forth. But it has to play its economic role *enough* of the time if it is still to count as money. If everyone, all the time, started using dollar bills as bookmarks rather than as currency, then those green paper rectangles would no longer be money. Likewise, exchanges of coins count as "buying"

and "selling," and the amount exchanged counts as a "price," only if the coins are valued as a means of indirect exchange, and thus if a greater quantity of them is *ceteris paribus* preferred to a lesser. (After all, not all exchanges count as buying and selling; if I hand you an insulting note, and you respond by slapping my face, the note was not money that I was using to purchase the service of a slap—though a Martian anthropologist might not be certain).

> [H]ow do we know that a phenomenon which we observe when we are observing human beings is what we ought to call a language? Or what we should call calculating? [A] criterion of people talking is that they make articulated noises. . . . Similarly if I see a person with a piece of paper making marks in a certain sort of way, I may say, "He is calculating." Now in the case of the people with the sticks, we say we can't understand these people—because we expect something which we don't find. . . .
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> We can now see why we should call those who have a different logic contradicting ours mad. The madness would be like this: (a) The people would do something which we'd call talking or writing. (b) There would be a close analogy between our talking and theirs, etc. (c) Then we would suddenly see an entire discrepancy between what we do and what they do—in such a way that the whole point of what they are doing seems to be lost, so that we would say, "What the hell's the point of doing this?"
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> But is there a *point* in everything we do? What is the point of our brushing our hair in the way we do? Or when watching the coronation of a king, one might ask, "what is the point of all this?" (Wittgenstein 1976:203–204.)

What the wood-sellers are doing seems crazy only because we assume their preferences are like ours, and that their beliefs about how to satisfy those preferences are also like ours. But the very fact that they are behaving so oddly should give us reason to doubt those assumptions. Of course they might assure us verbally, "Yes, yes, our beliefs and preferences are just like yours." But talk is cheap. They might be lying, or confused. For that matter, they might not even be speaking our language. After all, the best evidence we have that their word "money" means the same thing as our word "money" is what they do with what they call money. Meaning cannot be separated from use. Something is money only if it plays the role in people's actions that constitutes its status as money.

> Why can't my right hand give my left hand money?—My right hand can put it into my left hand. My right hand can write a deed of gift and my left hand a receipt.—But the further practical consequences would not be those of a gift. When the left hand has taken money from the right, etc., we shall ask: "Well, and what of it?"[7]
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> (Wittgenstein 1958:94.)

Wittgenstein uses the example of economic action to illustrate his views on thinking. And the parallel is precise. Just as nothing counts as an inference unless it is in accord with the laws of logic, so nothing counts as buying or selling unless it is in accord with the laws of economics. Hence we are in no danger of encountering irrational prices, for the same

reason that we are in no danger of encountering a chess game that consists of tossing a ball back and forth across a net. *That* wouldn't be chess. *Those* wouldn't be prices.

4. From Wittgenstein to Mises and Hayek

In solving Frege's problem, Wittgenstein has solved Mises' problem as well. There can be *a priori* economic laws, because the terms that occur in those laws will be applicable only to phenomena that in fact obey those laws.

Mises agrees with Wittgenstein that economic categories legitimately apply only to those items that play the corresponding role in people's actions. He too invokes the specific example of coins, which count as money only if they are actually used to facilitate indirect exchange. That use is *constitutive* of money. Mises writes:

> If we had not in our mind the schemes provided by praxeological reasoning, we should never be in a position to discern and to grasp any action. We would perceive motions, but neither buying nor selling, nor prices, wage rates, interest rates and so on. ... If we approach coins without such preexisting knowledge, we would see in them only round plates of metal, nothing more. Experience concerning money requires familiarity with the praxeological category *medium of exchange*. (Mises 1996:38.)

In his early essays on the philosophy of social science, Mises' student (and Wittgenstein's cousin) Friedrich Hayek (1899–1992) elaborates the same idea.[8]

> [A]ll propositions of economic theory refer to things which are defined in terms of human attitudes toward them . . . . I am not certain that the behaviorists in the social sciences are quite aware of *how* much of the traditional approach they would have to abandon if they wanted to be consistent or that they would want to adhere to it consistently if they were aware of this. It would, for instance, imply that propositions of the theory of money would have to refer exclusively to, say, "round disks of metal, bearing a certain stamp," or some similarly defined physical object or group of objects. (Hayek 1948a:52, n. 18.)

> That the objects of economic activity cannot be defined in objective terms but only with reference to a human purpose goes without saying. Neither a "commodity" or an "economic good," nor "food" or "money," can be defined in physical terms. . .. Economic theory has nothing to say about the little round disks of metal as which an objective or materialist view might try to define money. ... Nor could we distinguish in physical terms whether two men barter or exchange or whether they are playing some game or performing some ritual. Unless we can understand what the acting people mean by their actions any attempt to explain them, that is, to subsume them under rules ... is bound to fail. (Hayek 1976:52–53.)

But this is precisely the point of Wittgenstein's example of the wood-sellers: the mere fact that they are passing objects back and forth does not prove that they are engaging in

economic exchange rather than, as Hayek says, "playing a game or performing some ritual." (Recall Wittgenstein's mention of coronations and religious actions).

In order to make sense of the wood-sellers' actions, we have to attribute to them beliefs and desires different from our own with regard to coins and stacks of wood. Whether their actions really do count as buying and selling will depend on what attitude they really do take toward those items. If their attitudes diverge sufficiently from ours, then they are not buying and selling *oddly*; they are not buying and selling at all. Hayek draws the same conclusion: it makes sense to apply certain terms in explaining people's conduct toward certain physical objects (like coins) only if those terms accurately reflect the role that those objects play in their life (Hayek 1948b:65–66).

But Hayek goes on to draw a broader moral from all this. To make sense of a "savage's" actions, we must apply teleological concepts like "money" and "weapon" to the objects he uses. Merely physical terms like "shell" and "tube" will not play that role. More generally, to understand any human activity or practice, we have to apply terms that define those activities in terms of their goals—and that opens the door to a system of conceptual truths about human action: *praxeology*, or, as Hayek calls it, the Pure Logic of Choice:

> From the fact that whenever we interpret human action as in any sense purposive or meaningful . . . we have to define both the objects of human activity and the different kinds of action themselves, not in physical terms but in terms of the opinions or intentions of the acting persons, there follow some very important consequences; namely, nothing less than that we can, from the concepts of the objects, analytically conclude something about what the actions will be. If we define an object in terms of a person's attitude toward it, it follows, of course, that the definition of the object implies a statement about the attitude of the person toward the thing. When we say that a person possesses food or money, or that he utters a word, we imply that he knows that the first can be eaten, that the second can be used to buy something with, and that the third can be understood—and perhaps many other things. (Hayek 1948b:62–63)

Now we can begin to see why it is a mistake to assimilate what the praxeologist does to what a Cartesian rationalist does when he spins out the laws of physical motion *a priori*. The conclusions of praxeology are not in themselves empirical statements. They do not predict what people will do. For example, they do not predict how people will behave with regard to metal disks and piles of wood. What they do predict is how people will behave *so long as they are buying and selling*. If that gives praxeology empirical content, then geometry has empirical content in just the same way. Geometry cannot predict how many edges your next slice of pizza will have; but it can predict how many edges it will have *so long as it is triangular.*

In that sense, then, the propositions of praxeology are all conditional; and they apply in practice only when, and to the extent that, the conditions are met. This point is often missed even by praxeology's most sympathetic critics; Nozick (1997) and Steele (1992), for example, argue at length, *as a criticism of praxeological apriorism*, that the *application* of praxeology must always be an empirical rather than an *a priori* matter—as if any praxeologist

had denied it. Mises is perfectly happy to grant that empirical questions are relevant in economics—not at the level of economic theory, however, but only in the application of that theory to the real world. Praxeology is an abstract structure, like mathematics, and we must turn to experience to learn which things, if any, actually instantiate that structure in any particular case. (Mises 1962:44, cf. Mises 1976:25).

Mises writes that the claims of praxeology can never be falsified by experience:

> Some authors have raised the rather shallow question how a praxeologist would react to an experience contradicting theorems of his aprioristic doctrine. The answer is: in the same way in which a mathematician will react to the "experience" that there is no difference between two apples and seven apples or a logician to the "experience" that **A** and non-**A** are identical. Experience concerning human action presupposes the category of human action and all that derives from it. (Mises 1962:5.)

Well, just how *would* a mathematician or a logician react to a putative case of a contra-mathematical or contra-logical experience? Wittgenstein attempts to answer just this question:

> If 2 and 2 apples add up to only 3 apples, i.e. if there are 3 apples there after I have put down two and again two, I don't say: "So after all $2+2$ are not always 4"; but "Somehow one must have gone." (Wittgenstein 1983:97.)

In other words: mathematical concepts are applied in such a way that *nothing counts* as a falsification of mathematical law. We may *illustrate* mathematical claims by means of empirical experiments, but if the experiment goes wrong we revise not the mathematical claim, but rather the choice of illustration.

> This is how our children learn sums; for one makes them put down three beans and then another three beans and then count what is there. If the result at one time were 5, at another 7 (say because, *as we should now say*, one sometimes got added, and one sometimes vanished of itself), then the first thing we said would be that beans were no good for teaching sums. (Wittgenstein 1983:51–52.)

Wittgenstein is quite right; for there are items that behave like his mythical beans—droplets of water, for example—and we certainly don't use those to teach children how to add. ("Put these two droplets of water down next to those other two, and ... wait, not so close! And don't jostle the table—woops! Oh well ... today we learned that $2+2 = 1$.") Instead we say that it would have been a *misapplication* (not a falsification) of the principle if we had used water droplets to illustrate it. Likewise, any apparent falsification of praxeological claims will be treated as a misapplication of the theory. That is not because we are stubbornly clinging to our theory come what may, but because a thing's actual behaviour is what determines which *a priori* concepts apply to it, and *how* they apply. Likewise, the behaviour of the wood-sellers is our only criterion for determining whether they really prefer more

wood to less, whether they really regard coins as money, and so on, and thus for deciding which economic concepts apply to them, and how.

There is an interesting analogy here with theories like behaviourism and functionalism, which define mental states in terms of their causal roles. On these views, what makes a particular physical state of my brain count as, say, anger, is not anything internal to that brain state itself, nor is it some nonphysical, spiritual state correlated with it. Rather, the brain state counts as anger so long as the right things tend to cause it and it tends to have the right effects. Anger, on these views, is like software which can be run only on appropriate hardware. Just as you can't run DOS on a Macintosh, so you can't run the "anger" program on any physical system that lacks items that stand in the appropriate causal relations. By the same token, you can't run the "money" program on a social system whose members don't interact with each other in the right way. Social interactions have to meet certain conditions in order to count as a realization of the relevant economic category.

But this striking similarity is potentially misleading, because Wittgenstein and the praxeologists both insist that the causal relationships that must hold in order for an individual or a society to instantiate the relevant praxeological categories cannot be specified in non-psychological terms.[9] Hence, although it is true that empirical considerations come into play in determining whether a praxeological concept is applicable in a particular case, such empirical considerations cannot confine themselves to the sorts of purely quantitative magnitudes and repeatable experiments with which the physical sciences (supposedly) deal, but must instead involve the intuitive, interpretive method that Mises and Hayek, borrowing from the hermeneutical tradition, call *verstehen.*

The features of reality to which praxeological categories apply may have no identifiable *purely physical* features in common—a point frequently stressed by Hayek (1948b:59–62, 1976:82, n. 2). For Hayek, we understand others' behaviour by entering imaginatively into it, by trying to make sense of it from the inside. For example, if we see people exchanging coins and hauling off piles of wood, we try to enter into their behaviour and see what beliefs and preferences we would have to have in order to find it natural to perform these actions. That is how we determine which praxeological categories should be applied to the situation. Of course we might fail, and be baffled. We might not know what to make of them; in the extreme, we might decide their behaviour was not action at all, but some sort of reflex or automatism. Praxeology defines the criteria of money, cost, preference, and the like; but we have to use our intuitive understanding to recognize these criteria when they actually show up, since the criteria fall under teleological or thymological kinds, not physical ones.

Economic theory thus has both an aprioristic moment and a hermeneutical moment. Apriorism comes in at the level of formal theory; hermeneutics comes in at the level of application. Hence recent disputes within the Austrian School between aprioristic and hermeneutical factions miss the point. Hermeneutical *verstehen* decides how to apply the formalism to particular cases, a subject on which the formalism itself cannot rule; but the formalism constrains the possible interpretations that *verstehen* can legitimately come up with. To paraphrase Kant's famous maxim:

PRAXEOLOGY WITHOUT THYMOLOGY IS EMPTY;
THYMOLOGY WITHOUT PRAXEOLOGY IS BLIND.

Hayek's notion of *inferring* other people's mental states from our own is one that Wittgenstein would want to resist, for reasons that need not detain us here. Nevertheless, this conception of hermeneutical understanding, of entering into the attitudes of another, plays a role in Wittgenstein's theory as well:

> And there is even something in saying: he can't *think* it. One is trying e.g. to say: he can't fill it with personal content; he can't really *go along with it*—personally, with his intelligence. It is like when one says: this sequence of notes makes no sense, I can't sing it with expression. I cannot *respond* to it. (Wittgenstein 1983:81.)

> Look at a stone and imagine it having sensations.—One says to oneself: How could one so much as get the idea of ascribing a *sensation* to a *thing*? . . . And now look at a wriggling fly and at once these difficulties vanish and pain seems able to get a foothold here, where before everything was, so to speak, too smooth for it. . . . Our attitude to what is alive and to what is dead is not the same. All our reactions are different.—If anyone says: "That cannot simply come from the fact that a living thing moves about in such-and-such a way and a dead one not" then I want to intimate to him that this is a case of the transition 'from quantity to quality'. (Wittgenstein 1958:98.)

The way that a living thing moves about is here a *criterion* for its being capable of pain—and thus a criterion for our being able to *verstehen* its pain. And what Wittgenstein means by the Marxian phrase *transition from quantity to quality* is that we cannot read off its pain from some simple quantitative or mechanistic enumeration of its bodily movements; our recognition of the fly's pain is an irreducibly (or at any rate unreduced) *qualitative* experience, like Hayek's recognition of a friendly face.

5. Method and Madness

Hayek employs the notion of *verstehen* to dismiss the possibility of descriptive polylogism; and in doing so, he arrives at a characterization of "illogical thought" remarkably like Wittgenstein's:

> [I]t is not only impossible to recognize, but meaningless to speak of, a mind different from our own. What we mean when we speak of another mind is that we can connect what we observe because the things we observe fit into the way of our own thinking. But where this possibility of interpreting in terms of analogies from our own mind ceases, where we can no longer "understand"—there is no sense in speaking of mind at all; there are then only physical facts which we can group and classify solely according to the physical properties we observe. (Hayek 1948b:66.)

The praxeological doctrine that there is no such thing as irrational action proves in turn to be simply an application of the Wittgensteinian insight that there is no such thing as illogical thought. Just as we count no transition between thoughts as an inference unless it accords with the laws of logic, so we count no behaviour as an action unless it accords with the laws of economics. But as long as someone can be interpreted as exchanging what she values less for what she values more, and choosing the means she thinks effective to the ends she currently desires, then she fulfills the requirements for the application of economic categories—regardless of how odd we may find her selection of ends or her beliefs about means. When Mises hails Breuer and Freud for discovering that the mentally ill do not act irrationally (Mises 1990:21–22), is he claiming that a praxeological truth has been established empirically? Indeed not. What Mises takes Breuer and Freud to have discovered is not that the actions of madmen are rational, but that the behaviours of madmen are actions—a hermeneutical, thymological discovery, not a praxeological one.

But—it may be protested—what can it mean to say that people never act irrationally? Don't they act irrationally all the time? Well, just as Wittgenstein does not mean to deny the existence of the phenomenon we call illogical thought, but simply wants to reinterpret it, so Mises grants that people can do bizarre, ill-considered, and self-destructive things, but he resists calling them irrational.

Let's consider what seems like a clear case of irrational action: Rousseau's example, in the *Second Discourse*, of the man who sells his bed in the morning, because he's not sleepy and so doesn't need it, only to seek frantically to buy it back in the evening. Elaborating on the example a bit, suppose Rousseau's bed-seller sells me his bed each morning for $10, and then buys it back from me that evening for $20, only to repeat the whole performance on the following day. As the days pass, I grow steadily richer, and he grows steadily poorer. His stock of money constantly dwindles; his stock of beds does not grow, but fluctuates daily between zero and one. This series of voluntary transactions leads him to end up far worse off than he started. (This bed-seller is reminiscent of Wittgenstein's wood-sellers, who can be similarly exploited by anyone who buys narrow and sells wide).

The bed-seller seems to have inconsistent preferences. He prefers $10 to his bed, but then he turns around and prefers his bed to $20. If he may be assumed to prefer $20 to $10, then his preferences form a vicious circle. Surely action on such preferences is irrational. How can Mises handle such a case?

Mises handles it by agreeing: action on inconsistent preferences would be irrational. But where in this case is there any action on inconsistent preferences? Here we have an action of exchanging a bed for $10. That action reveals a preference for $10 over a bed. Nothing inconsistent about that. Then we have a second action: exchanging $20 for a bed. That action reveals a preference for a bed over $20. No inconsistency there either. And so on. What we have is a series of actions, each one perfectly rational. Of course the whole sequence of actions isn't rational; but the whole sequence of actions isn't an action either. A whole sequence of actions could be an action, if they were all part of a unified plan; but clearly there's no unified plan here. The man relinquishes his bed in order to get $10; and then he parts with $20 in order to get his bed back; but there isn't any goal for the sake of which he performs the entire sequence. No goal, no action; no problem.

But what if there *were* a common goal? What if the bed-seller deliberately embraced this series of actions in order to prove some philosophical point, like Dostojevski's Underground Man going mad to refute determinism? Why, then we should have a perfectly rational action: he desires to prove a point, he believes that this sequence of actions will prove it, so he performs them. Of course the preference that guides this sequence of actions is not a preference for bed over money or money over bed; it is a preference for proving a philosophical point—an entirely different preference, and of course not an inconsistent one (cf. Mises 1996:103–104, Kirzner 1960:171–172). From a Misesian standpoint there is no logical incoherence in the bed-seller's preferences, because his actions are chosen at different times. In the morning, he genuinely prefers $10 to his bed. In the evening, he genuinely prefers his bed to $20. Of course his later preference is inconsistent with his earlier one, but naturally preferences often do change over time. Then what is wrong? He does this. And he gets along all right. What more do you want?

Steele (1992), for one, wants something more. Steele writes:

> [I]t is a stubborn empirical fact that individuals do *not* always conform even to the lean requirements of Misesian 'action'. . . . Observations show that individuals' preferences are not always consistent. . . . A determined praxeologist can account for every vagary . . . by positing a different end-means scheme in each case, and in this way rescue the apodictic certainty of praxeology, but this would be at the cost of rendering it inapplicable because all too promiscuously applicable. . . . [T]he praxeology that is apodictically true tells us nothing about empirical reality, whilst the praxeology that tells us something about reality is not apodictically true. . . . [T]he Misesian conception of an individual with a consistent, stable ordering of preferences is . . . literally false if taken as a claim about every individual at all times. (Steele 1992:98–99.)

But what exactly is Steele asking of praxeology when he insists that it tell him something "about empirical reality"? It is of course true enough that praxeology will avail us little unless we know how to apply it, and that there is no apodictically certain method of applying it. That is not an objection to Mises' doctrine; it *is* Mises' doctrine. Steele seems to think there is something *ad hoc* about "positing a different end-means scheme" for every eccentric action. But if Steele is willing to count these eccentric actions precisely as *actions*, rather than as epileptic seizures or something of the sort, then clearly he regards them as *motivated*, and it is hard to see what their being motivated comes to if not their embodying an end-means scheme. As for Steele's rejection of "the Misesian conception of an individual with a consistent, stable ordering of preferences," if Steele is talking about stability and consistency *at a time*, then it is not clear what he can be imagining as a counterexample;[10] and if he is talking about stability and consistency *over time*, then it is not Mises' conception that he is criticizing, since Mises explicitly denies diachronic stability: all Mises means is that every individual action reveals a *synchronically* consistent order of preferences.

6. Thought Without Rails

What is the source of praxeological necessity? Is it something discovered in the world, or is it imposed upon the world by our own linguistic conventions? Mises himself changed his

mind over time as to whether the conceptual truths of praxeology are *analytic* or *synthetic* (contrast, e.g., Mises 1996:8 with Mises 1962:4–5), and present-day Austrians are likewise divided (Hayekians favoring analytic, Rothbardians favoring synthetic). Wittgenstein offers praxeology a solution to this problem as well, by rejecting the distinction between analytic and synthetic propositions.

As traditionally understood, analytic truths are linguistic *stipulations*, and therefore have no factual commitments, whereas synthetic truths do have factual commitments, and so are not merely stipulative. Neither of these descriptions characterizes conceptual truths as Wittgenstein understands them. For Wittgenstein, a conceptual (or, as he would say, "grammatical") proposition is indeed stipulative, and so in a certain sense lacks factual *content*; so it would be misleading to call it "synthetic."

> Is $25^2 = 625$ a fact of experience? You'd like to say: "No."—Why isn't it?—"Because, by the rules, it can't be otherwise."—And why so?—Because *that* is the meaning of the rules. Because that is the procedure on which we build all judging. . . . Following a rule is a human activity. (Wittgenstein 1983:330–331.)

But it would also be misleading to call a conceptual truth "analytic"; for while such a truth lacks factual *content*, it does not lack factual *commitments*, because for Wittgenstein the ability to apply a concept correctly is part of what it means to possess that concept in the first place (Wittgenstein 1983:265, cf. Rand 1997:481). We don't first have a concept and *then* see if we can apply it to concrete reality rather, the ability to apply it to concrete reality is *part* of having the concept. Likewise, for Wittgenstein, one cannot employ a concept, *or any proposition containing that concept*, without being committed to the truth of various factual propositions that apply that concept to reality. For example, although "bachelors are unmarried men" is a grammatical proposition that holds in virtue of a linguistic stipulation, one cannot assert that proposition without employing the concept "bachelor," and one cannot count as employing *that* concept unless one has a reasonably reliable capacity to distinguish bachelors from non-bachelors in the real world. Otherwise "bachelors are unmarried men" is just meaningless sounds, or dead marks on a page, not something that can serve as the content of a judgment. For Wittgenstein, "what must be added to the dead signs in order to make a live proposition" is not "something immaterial, with properties different from all mere signs"; rather, "if we had to name anything which is the life of the sign, we should have to say that it was its *use*" (Wittgenstein 1975:4).

But why, we might ask, is it the *use*, rather than the corresponding mental idea, that gives the sign its life? Well, in a sense it certainly is the mental idea. But having a mental idea isn't just a matter of having some image in one's head. For an image in one's head requires interpretation just as much as an external written or spoken sign does. *What* we think, in having that image, depends on what we are disposed to *do* with that image; otherwise it is indeterminate just what our mental idea is.

> I cannot know what he's planning in his heart. But suppose he always wrote out his plans; of what importance would they be? If, for example, he never acted on them. . . . Perhaps someone will say: Well, then they really aren't plans. But then neither would

> they be plans if they were *inside* him, and looking into him would do us no good. (Wittgenstein 1982, vol. I:34.)

Whether my mental goings-on count as *plans* or not depends in part on whether I have a tendency to act on them. This tendency can be defeasible, of course; but it must be there. Wittgenstein's account of conceptual truths is the moral of this passage writ large.

What, for example, is involved in thinking "there are no tigers in the room"? It can't simply be a matter of imagining the room without tigers in it, for that image could serve just as well as a sign of the thought "there are no buffalo in the room." (Unless I imagine the room with buffalo but no tigers; but then it would serve equally well as a sign for "there *are* buffalo in the room," which is not what I am thinking when I think there are no tigers in the room). Or do I perhaps imagine the room with tigers in it, but with a big X through it? Well, in that case, what do I mean by the X? After all, such an image could serve just as well to represent the thought "tigers *should* not be in the room," or the thought "there are no rooms, and no tigers," or the thought "the room contains tigers and a large X-shaped thing." How do I get the X to mean negation? Adding more images to the X-image is not going to help (Wittgenstein 1958:147, 1975:5, 1976:191). What gives a physical sign its significance is not a mental sign accompanying it; rather, it is the *use* to which such signs are put.

Using a concept involves applying it to the real world. Since possessing a concept involves being able to use it, it follows that the possession of a concept commits us to applying that concept in various ways, and that these applications must be *generally* reliable and accurate in order for us to possess the concept at all (Wittgenstein 1983:25, 1972:68–69). And from this it follows that one must assent to certain *factual* propositions employing the concept in order to count as possessing it in the first place, so that no "analytic" use of a concept is intelligible unless it is embedded in a network of "synthetic" uses of that same concept. Hence "propositions of the form of empirical propositions, and not only propositions of logic, form the foundation of all operating with thoughts (with language)" (Wittgenstein 1972:48–51, cf. Wittgenstein 1953:88, 1983:295). But in this case it no longer makes sense to ask whether conceptual truths are "analytic" or "synthetic." The analytic/synthetic distinction itself presupposes a separability of concept from application that cannot be sustained.

Our conceptual truths are *usable* only on the assumption that various empirical statements hold. These empirical statements are not themselves conceptual truths, but if they were not to hold, we would not be able to employ our concepts. It is not as though the falsity of the empirical statements would *falsify* our conceptual truths; that would make the conceptual truths themselves into empirical statements, which they precisely are not. The *denial* of a conceptual truth employs the constituent concepts of that truth just as much as its assertion does; a situation in which our concepts are *disabled* is one in which the associated conceptual truths can be neither asserted nor denied. (Wittgenstein 1958:88, 1983:51–52, 382).

If the conceptual truths of mathematics depend on our ability to apply them to real-world cases, it does not follow that Frege was wrong in his rejection of Mill's "gingerbread and pebble" approach to mathematics. Rather, Wittgenstein is trying to transcend the opposition between the two positions, by showing that *each is right* but *in different respects*. Mill

and Frege both assume that only statements with empirical content can have empirical presuppositions. Hence Mill, rightly seeing that the truths of arithmetic have empirical presuppositions, wrongly infers that they have empirical content; and Frege, rightly seeing that the truths of arithmetic have no empirical content, wrongly infers that they have no empirical presuppositions. Our employment of conceptual truths presupposes our ability to apply those concepts. But that does not mean that those conceptual truths are *about* our ability to apply those concepts (Wittgenstein 1983:192, 325, 352–3, 382).

Earlier I formulated a slogan: *Praxeology without thymology is empty; thymology without praxeology is blind.* We can now see how to guard against a misinterpretation of this slogan. It's not as though praxeology can exist without thymology, but in an "empty" condition, or that thymology can exist without praxeology, but in a "blind" condition. The thymological ability to apply praxeological concepts is *constitutive* of the possession of such concepts. Praxeology and thymology are distinguishable, but inseparable, aspects of an integrated unity. On Wittgenstein's view, "[t]he human body is the best picture of the human soul" (Wittgenstein 1958:178)—and of course vice versa. Likewise thymology is the best picture of praxeology and vice versa. It is through the application, the *use*, of our concepts that we are best able to understand them.

The mistaken insistence on viewing praxeology and thymology as separable ingredients, rather than inseparable aspects, of our understanding is what motivates those critics of Austrian methodology (e.g., Gutiérrez 1971) who object that praxeology is vacuous. They are quite right to insist that praxeological knowledge cannot exist without the ability to apply praxeological concepts to empirical reality. *Praxeology without thymology is empty.* Their mistake lies in confusing this claim with the entirely different claim that the content of praxeological knowledge must be *drawn from* empirical reality, as though we acquired thymological experience *first* and then came up with praxeological principles by generalizing *from* that experience. On the contrary: *Thymology without praxeology is blind.* "History speaks only to those people who know how to interpret it on the ground of correct theories" (Mises 1996:863). Praxeological truths, with all their logical interconnections, are implicit in thymological experience from the start. To *verstehen* an action just *is* to locate it in praxeological space. Neither praxeology nor thymology is prior to the other; we do not acquire one first and then use it to get to the other. "Light dawns gradually over the whole" (Witgenstein 1972:21).

It is important, however, not to let the *inseparability* of praxeology from thymology blind us to their *distinguishability.* Lavoie (1986), for example, insists that theory and history are "two inescapable aspects of what is ultimately one integrated intellectual endeavor." So far so good; this is just what I've been arguing. But Lavoie then goes on to draw the conclusion that we should reject Mises' doctrine that "no historical account can ever cause us to go back and reconsider our a priori theory" (196); Lavoie instead maintains that unless Mises treats the claims of praxeology as falsifiable, "the scientific community has no responsibility to take him seriously" (202). In Wittgenstein's terms, Lavoie is insisting that any empirical propositions that are working backstage must appear in the play. "Theory no less than history involves *verstehen*," Lavoie urges (Lavoie 1994:60). Well, yes and no. Yes, in the sense that there *is* no praxeology without thymology. No, in the sense that we could not praxeologize differently by *verstehen* differently; although there are different ways of

verstehen, nothing that did not embody the unchanging principles of praxeology would count as *verstehen* at all. So although *verstehen* may be, as Lavoie says, "historically and culturally situated," praxeology is not—at least, not in the sense that changes in historical and cultural *context* could work changes in praxeological *content*. The plot of *Hamlet* remains the same regardless of who's doing what backstage—because the alternative to performing *Hamlet* with *this* plot is not to perform *Hamlet* differently, but not to perform *Hamlet* at all. Nothing that departs from Shakespeare's story counts as a performance of *Hamlet*; and nothing that departs from praxeology's story counts as a performance of *verstehen*.

In this sense, then, Steele is not entirely wrong in stressing the importance of *diachronic* consistency:

> Kirzner's . . . example [in which] a man gives in to the sudden impulse to throw his glass of wine at the bartender . . . . can be characterized as the switch from one rational means-end framework (to sit quietly drinking at the bar) to another rational means-end framework. . . . Yet, if an individual were in the habit of switching to radically new ends, say, every half-second, it would be difficult to explain his actions by the application of praxeology. (Steele 1992:98.)

If switching means-end schemes every half second were indeed the rule rather than the exception, then arguably this *would* (contra Mises) *invalidate* praxeology, but it would still *not* (contra Steele) *falsify* it. Strictly speaking, the example is misdescribed, because talk of ends can get its purchase only where ends are, in general, relatively stable; what Steele describes is not a world of radically unstable ends, but a world *without* ends.

If, among Austrians, the inseparability of praxeology from thymology is *overstated* by Lavoie, Steele, and other adherents of the "interpretive" or "hermeneutical" faction, it is correspondingly *underestimated* by the orthodox "formalist" faction. Hoppe (1995), for example, writes that "the proposition that humans act . . . . is also not derived from observation" because "there are only bodily movements to be observed but no such things as actions" (22). This remark suggests that our perceptual experience of other people presents to us only bodily movements, to which we must *then* apply praxeological concepts in order to interpret those movements as actions. But in fact our conceptual understanding plays a *constitutive* role in our perceptual experience.

Closely related to the question of whether *a priori* statements are analytic or synthetic is the question of whether their necessity depends in some way on the perceiver. Smith (1990) divides Austrians into *reflectionists* and *impositionists.* Impositionists hold that "*a priori* knowledge is possible as a result of the fact that the content of such knowledge reflects merely certain forms or structures that have been imposed or inscribed on the world by the knowing subject," whereas reflectionists maintain 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."

Mises favors an impositionist view in the tradition of Immanuel Kant (Mises 1962:11–18). But the drawback of this approach is that it silently opens the back door to psychologism and polylogism just as it is loudly slamming the front. If impositionism is true, then we cannot *help* seeing the world in terms of the categories that we impose upon it, and so

there is no danger of our ever encountering an experience that falsifies those categories. Hence the truths embodied in those categories are freed from any dependence on empirical generalizations and contingent psychological tendencies. On the other hand, by granting that such categories apply to the world only because we impose them on it, it leaves open the possibility that creatures of another sort might impose different categories—as Mises himself admits (Mises 1996:34–36). Mises' student Murray Rothbard instead adopts the reflectionist position, echoing Frege's view that logical principles are laws of reality rather than laws of thought[11] (Rothbard 1957:318). But this solution too seems vulnerable to polylogism. If the principles of psychology are normative for rather than constitutive of thought, then thought can depart from them; and once illogical thought is permitted, so is irrational action, and the fabric of praxeology is rent asunder.

Where does Wittgenstein fall in this category? As I read him, he rejects the reflectionist/impositionist dichotomy just as he does the analytic/synthetic dichotomy. On this view, impositionism is rejected because it pictures logic as a constraint imposed by us on the world, while reflectionism is rejected because it pictures logic as a constraint imposed by the world on us. To think of logic as *constraining* something is to imagine, or try to imagine, how things would be without the constraint. Since neither talk of an illogical world nor talk of illogical thought can be made sense of, the whole question cannot be meaningfully asked and so may be dismissed in good conscience: "in order to be able to draw a limit to thought, we should have to find both sides of the limit thinkable . . . . We cannot think what we cannot think; so what we cannot think we cannot *say* either" (Wittgenstein 1961:3, 49).

For reflectionism, "*a priori* knowledge is read off the world, reflecting the fact that certain structures in reality are intrinsically intelligible" (Smith 1994:309). But for Wittgenstein we do not *find* conceptual truth in the world (as if we might, but for the world, have found something else); we bring it with us. It is the lens through which we view reality. Hence reflectionism is mistaken. But impositionism is unwarranted also; we cannot peek *around* our lens at reality-in-itself to see that it deviates from what our lens shows us about it. What we know about reality just *is* what our lens shows us.

It is a sign of confusion to say either that the logicality of the world has its source in the structure of thought or that the logicality of thought has its source in the structure of the world—as though the logicality of thought and the logicality of the world were two different facts that need to be hooked together, rather than being two sides of the same fact (cf. Crary 2000:136–137). We cannot justify our language by pointing to its *reflection* of extralinguistic reality, because it is only *in* and *through* language that we can do such pointing. The relation between language and the world is not one of *constraint*, in either direction. As Wittgenstein says, "The laws of inference do not compel him to say or write such and such like rails compelling a locomotive" (Wittgenstein 1983:80). Reality doesn't foist the rules of grammar on us; nothing does. Our thinking is free, rail-less. Yet it is misleading to say that we can change the rules of logical grammar as we please, because certain rules are essential for thinking at all. That doesn't mean we run up against some sort of boundary; there are rules one cannot think past, but that means not "try as he may he can't think it" but rather that once we leave those rules behind we no longer count as thinking. (And of course nothing *forces* us to think. We are free to lie around in a drug-induced stupor until we die of starvation.) Naturally we can make whatever stipulations we please as to

what form of words will count as asking a question, making an assertion, and so forth; in *that* sense, the laws of grammar are radically malleable. But unless we act in accordance with rules that *do* make certain forms of words count as asking questions and making assertions, we cannot ask any questions or make any assertions; in *that* sense the laws of grammar are not malleable at all. To borrow a phrase from Hayek, the mind does not so much *make* rules as *consist* of rules (Hayek 1973:18); and a mind that "consists of rules" cannot intelligibly be interpreted either as *making* rules (as though it might have left them unmade), or as having rules *imposed* on it (as though it might have been free of them). Wittgenstein's idea here is really a very Kantian one: we act freely when we act in accordance with a law we impose on ourselves, even though the structure of reason itself determines what law we can impose on ourselves.

7. Conclusion

The theoretical connections I have traced between Wittgenstein and Mises are not often recognized, because those scholars who spend their time studying the ideas of either thinker are all too often unfamiliar with the ideas of the other. Such connections would indeed have surprised Wittgenstein, who thought highly of economists Piero Sraffa and John Maynard Keynes (Monk 1990:260–262, 268–269, 391–395)—archvillains from the Austrian point of view—and found his cousin Hayek a bore (Hayek 1992:178). Nevertheless, the Misesian project can be seen as an (unwitting) application and elaboration of the Wittgensteinian one; and this recognition places Mises' praxeological approach on a firmer foundation. The example of the wood-sellers shows us that Wittgenstein's arguments for the conclusion that whatever counts as *thought* must embody *logical* principles can likewise be deployed to show that whatever counts as *action* must embody *economic* principles, a conclusion which in turn provides the basis for a defense of Mises' controversial claim that the laws of economics are *a priori* rather than empirical. Moreover, the Wittgensteinian approach also points the way toward a transcendence of the intractable disputes among present-day Austrians over formalist versus hermeneutical, analytic versus synthetic, and impositionist versus reflectionist interpretations of economic method.

Notes

1. It was Frege's work that was largely responsible for converting Husserl away from the psychologism of his early *Philosophy of Arithmetic* to the forthright anti-psychologism of his *Logical Investigations* (not to be confused with Frege's later work of the same name). It is in *Logical Investigations* that Husserl takes up the Fregean cudgel against Mill and other psychologicians (cf. Husserl 1997:7); and it is the *Logical Investigations* that Mises cites favorably for its critique of "psychologism," "empiricism," and "historicism." (Mises 1976:23 n. 27, 102, 127 n. 67.) Hence Mises, like Wittgenstein, may perhaps be seen as working within the tradition of Frege.
2. Since "psychologist" is taken, some new term is needed to refer to the proponent of psychologism. I owe this one to Wood (1994:152).
3. "In the Western analytic tradition, psychologism has been in disrepute since at least the time of Frege." (Wood 1994:153.) Seeing Mises' project as one with stronger affinities to Fregean anti-psychologism than to Cartesian rationalism might help to make his apriorism more palatable in contemporary philosophical circles.

4. "'Thymology' is derived from the Greek $\theta\upsilon\mu\acute{o}\varsigma$, which Homer and other authors refer to as the seat of the emotions and as the mental faculty of the living body by means of which thinking, willing, and feeling are conducted." (Mises 1985:265, n. 1.)
5. These remarks of Mises' tell against the view, popular among some Misesians, that Hayek's evolutionary, invisible-hand explanations of human beliefs and practices are inherently contrary to praxeology as Mises understood it.
6. My understanding of Wittgenstein's relation to Frege is heavily indebted to Cerbone (2000), Conant (1992), and Kelly Jolley (in conversation).
7. Incidentally, though Wittgenstein surely had no such thought in mind, the Austrian argument against the market-socialist idea of "simulating" a capitalist price system for the purposes of economic calculation is neatly summed up in that remark.
8. Contrary to what is sometimes claimed (e.g., Gray 1998:17), the early Hayek was a firm defender of Misesian praxeology, differing from his mentor only in the relative emphasis placed on the empirical versus the *a priori* aspects of social science. Even Hayek's later move away from praxeology consists not in any radical break but rather in a steadily continuing shift of that emphasis, and thus a progressive dwindling of the *a priori* aspect in favor of the empirical one. Those who take Hayek's 1936 paper "Economics and Knowledge" to be a repudiation (as opposed to simply a call for a more cautious formulation) of praxeology need to take into account the fact that Hayek *went on*, in the early 1940s, to write the robustly praxeological essays "The Facts of the Social Sciences" and "Scientism and the Study of Society."
9. My understanding of Wittgenstein on this point is indebted to Cook (1969) and Suter (1989).
10. Steele gives the example of a person who initially prefers A to B, but when offered a third option, C, now prefers B to A. This is obviously a diachronic case, not a synchronic one, and so does not count against Mises.
11. Smith (1990) oddly regards Frege as an impositionist, whereas I should have thought Frege a reflectionist's reflectionist.

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