

On Robert Nozick's 'On Austrian Methodology'

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Austrian economics – the school of thought associated with Carl Menger, Frederick von Weiser, Eugen von Bohm-Bawerk, and in this century, Ludwig von Mises, Friedrich Hayek, Murray N. Rothbard, and Israel Kirzner – is based on a framework of methodological principles and assumptions much at variance with those of traditional or 'orthodox' economists. Robert Nozick, in his 'On Austrian Methodology', focuses attention on the most fundamental features of this framework, and subjects them to a thoroughgoing and scathing analysis. Singled out for detailed and critical review are: (1) the praxeological concepts of methodological individualism; (2) the claim that economics is an *a priori* science of human action; (3) the nature of preference and its relation to choice and action; and (4) the assumptions of time-preference theory. Although Nozick does not consider Austrian views on business cycles, market process analysis, the coordinative and informational effects of the price system, competition, and several other fundamental aspects of praxeology, his criticism strikes at the very root of the praxeological school. This paper attempts to refute each criticism made of the praxeological school by Nozick on a point-by-point basis. It thus follows the same pattern as the original paper, and scrutinizes in detail the arguments made by its author.

'On Austrian Methodology'¹ is eloquent testimony to the functioning of the interdisciplinary approach, for its author, philosopher Robert Nozick, nonetheless tackles an economic school of thought. Its thoroughness, its insight, its sheer brilliance, are proof positive that the boundaries that have been erected between the various academic disciplines are needless and artificial. Although I shall have many critical remarks to make about the article, none of them can be fairly attributed to the fact that it was penned by a philosopher and not an economist.

His article focuses on four main tenets of Austrianism, or praxeology: methodological individualism, the *a priori* nature of human action, and the concepts of indifference and time-preference. Along the way, Nozick touches on some dozen or so other building-blocks of the praxeological system. Let us consider each in turn.

I. Methodological Individualism

Taking the points to be considered in the order developed by Professor Nozick, we may first concern ourselves with his speculations to the effect that while Austrians are reductionists within economics, they are opponents of this procedure when it is applied 'from below (physics and neurophysiology)'.²

What are the anti-reductionist arguments which Austrian methodological individualists use against possible reduction of human action to statements in the hard sciences? Can these be used against the praxeological school in its own determination to defend the proposition that all behaviour of groups is traceable back to individual decision-making, as Nozick alleges?

The reason we may object to the explanation of human action in terms of the movement of subatomic particles or electrical impulses across neurons is because there is simply no *equivalence* between the thoughts, feelings, pains, purposes, and plans which make up the reality of acting individuals, on the one hand, and the constructs of physics and neurophysiology, on the other. And this is completely apart from the question of whether these sciences will ever succeed in correlating the two, or explaining human decision-making in these terms. Be the lie-detector ever so perfect, the subjective feeling of telling the truth is, and will always be, radically different in kind from the pulse and sweat rates with which they are (may someday be) correlated.

Purposeful, future- and forward-looking behaviour is the essence of human action. People act because they envision a future that is preferable to one that does not include their present action. The explanation, then, of why people act is *teleological*: they act because they have *purposes* which they think can be accomplished if they act. But such a mode is completely at variance with that which prevails in the natural sciences. There, causality or correlation is all, and teleology is dismissed as a suspect and illegitimate kind of anthropomorphism.

Austrians reject the reduction of economics to physics on the grounds of the incompatibility of the subject-matters of the two disciplines.³ We cannot now give a definitive answer as to whether this line of reasoning can be turned back upon the praxeological school in its determination to defend the reduction of group activity to individual behaviour until we have examined this doctrine of methodological individualism. But we can say at the outset that if this Nozickian speculation is to bear any fruit it must be

shown that a similar difference exists between the micro- and macro-realms of economics as between the disciplines of the social and the natural sciences. To my knowledge this has never been done, let alone attempted.

1. We turn to an examination of Nozick's equation of methodological individualism, i.e. 'the theory of individual action', with 'Robinson Crusoe theory'. Says Nozick: 'Economists who discuss individual human action often use the example of Robinson Crusoe, so we might call the theory of such individual action "Robinson Crusoe theory"'.⁴

There are several objections to this way of proceeding. It is aesthetically displeasing; for the reader, when confronting the new term, must pause and translate each time he sees it. More important, it is a philosophical error, if I may make so bold as to label it thus, for in needlessly duplicating terminology, it is in violation of the law of Occam's Razor. This is, moreover, no mere quibble. For by dint of this terminological innovation, confusion and obfuscation are brought in where none existed before.

When Nozick asks, for example, if 'the theory of the interaction of Crusoe and Friday can be reduced to Crusoe theory',⁵ he seems to be dealing with something new, and puzzling. But if we translate this query back into the more mundane 'Can the interaction of Crusoe and Friday be traced back to what is true of them individually?' it becomes more amenable to analysis. It asks, then, if there is anything about Friday, and Crusoe, and their interaction, that cannot be traced back to facets of the two individuals. It might also be interpreted as asking if there is something about Crusoe and Friday that is *not* derivable from truths about each of them. Is there, for example, a Crusoe-Friday 'group mind' at work when they interact, but which mysteriously disappears when the two separate?

When reinterpreted in this manner, the answers seem much more intuitively obvious than in their original construction.

But perhaps the greatest shortcoming of this definition is that it allows Nozick to define 'Crusoe theory [a]s the theory of Crusoe's interaction with the inanimate and nonhuman animate environment'.⁶ The problem with this is that while 'Crusoe theory' may well consider interaction with only the 'inanimate and nonhuman animate environment' (Nozick can define the term in any manner he chooses), the Austrian theory of individual human action most definitely includes Crusoe's interactions with other human beings *also*.⁷

So when Nozick asks 'Does the theory of two-person interaction merely *specify* the previous Crusoe theory and apply it in particular cir-

cumstances, or does it introduce something new and irreducible?' (p. 354) he is able to treat this as an interesting non-vacuous question, with a positive answer as a possibility.

I contend, however, that the only reason a positive answer could be given is because Nozick's original definition explicitly excludes the human element. *Of course*, if we define 'Crusoe theory' apart from the human element, then when Friday is introduced we can readily agree that 'something new and irreducible' is added: the human element. But this, to repeat, is not because there is anything in the two-(or more-)person situation that is not traceable to the thoughts, purposes, and actions of individuals; it is solely because Nozick has defined Crusoe theory in this peculiar way.

2. We turn now to one of the most puzzling aspects of the article: the distinction between the 'trivial' and the 'non-trivial' question. As near as I can make out, what Nozick seems to have in mind is the following dichotomy:

The Trivial Question – Are two-(or more-)person interactions reducible to truths about individuals? Can we tell all about the Crusoe–Friday interaction solely from truths about these two individuals?

The Non-trivial Question – Are two-(or more-)person interactions reducible to Crusoe theory; i.e. are the responses that an individual makes to other human beings derivable from the ones he makes with regard to inanimate and non-human animate matter?

If this interpretation is correct, the Austrian reaction to the first question would be to agree with Nozick's positive answer, but then to deny its triviality. One might, of course, agree with Nozick that it is a trivial question in that its answer is *obvious* and *necessarily* true; but the praxeologist would certainly not agree that it is trivial in the sense that the answer to it is *unimportant* or *uninteresting*.⁸

As evidence of the fact that methodological individualism is by no means widely accepted, of course, we need do no more than cite (1) the existence of macroeconomics and (2) the Nozick article that we are presently criticizing. Its very controversiality, then, proves that the doctrine is by no means trivial.

And what of the Non-trivial Question? It is indeed not a trivial question insofar as its answer is by no means obvious. In order to answer it, one would have to engage in some very extensive physiological-psychological research. And it is not even clear, at this early state of such research, how

one would go about determining exactly what the criteria would be for answering on either side.

But it is, contrary to Nozick, a very trivial question in that (1) it has never been asked before, to the best of my knowledge, in the history of economics, and (2) certainly no Austrian economist has ever concerned himself with it. And this should occasion no surprise. It is a direct outcome of Nozick's peculiar definition of 'Crusoe theory', and since he was the first to so employ it, it is only to be expected that he should be the first to raise the question.

What Nozick does is to put forth a somewhat interesting question (to those of a physiological-psychological bent), only vaguely and indirectly related to methodological individualism, and then criticize this Austrian doctrine on the ground that attention has been paid by the praxeologists to their own concerns, and not to this new 'interesting question'. It is as if I were to invent a new philosophical question (Where was the philosopher's stone first produced, and were there increasing returns to scale in its production?) vaguely related to the concerns of philosophers, and then call *my* question 'interesting' (it is, to me, at least in this scenario) and theirs 'trivial'.

3. The same analysis may be applied to Nozick's discussion of game theory.⁹ We can agree that human responses to a game-theoretic situation might not be reducible to 'Crusoe theory', but only because this latter view has been defined so as to exclude the human element. This is Nozick's non-trivial question: Can we infer the responses of people when they treat each other as rational agents from their responses to the inanimate and non-human animate environment? This is truly a debatable inquiry, and the answer may well turn out to be positive or negative. Austrians may sympathize with Nozick's interest in biology, and wish him well with his experiments. But they must completely reject his monopolistic claims to non-triviality. Methodological individualism, too, remains interesting, important, and still controversial, despite this foray into physiology which is irrelevant to Austrian concerns.

4. Nozick is off the mark, too, in his interpretation of methodological individualism (MI) with regard to the number of people that are its basic building-block. In his view of MI, '[T]he laws of $n+1$ -person interactions [are] reducible to the laws of n -person (inter-) actions', where n is a 'small' number.¹⁰

But it is the *individual* that cannot be dissolved into components who is both the starting-point and the ultimate given of all endeavours (of MI) to

deal with human action. Thus the correct interpretation of *n* is not 'small' but *one*.

When Austrians speak of methodological *individualism*, they mean it quite literally. And the individual can and must always be equal to *one*, and not a 'small number'. Thus Sidney Sherwood:

Since human choice is the large, the controlling force in social causation, we must perforce take the individual as the integral unit, for there is no choice but *individual* choice.¹¹

Economic forces, thus, in their last analysis, find their beginning in the minds of *individuals*.¹²

All consumption is individual. It cannot be 'socialized'. A painting in a public museum is not socially consumed. Each individual *alone* finds in it the satisfaction of his aesthetic want.¹³

It seems tempting to understand this divergence not as Nozick's failure to be acquainted with a most basic postulate of MI but rather as part and parcel of his *reinterpretation* of MI in a way that makes it 'non-trivial'. But whatever the cause of the confusion, one thing is clear: for the Austrian economist, the building-block out of which MI operates is the single, unique, separate *individual*, not a 'small' group.

5. We turn next to Nozick's treatment of crowds, groups, assemblages, etc., where he sees an embarrassment for the theory of MI. But his statement of the 'logical possibility that there be . . . emergent truths'¹⁴ in this situation, i.e. that some truths about mobs might not be found by a full study of the individuals that make it up, and that, rather, the true facts will only 'emerge' from a study of the group itself, apart from the individuals concerned, is an unsupported assertion. In point of fact, the theory of crowds is not a weakness but a strength of MI, in that this is the only proper way to study the phenomena.¹⁵

It is not 'logically possible that there be such emergent truths'. On the contrary, it is inconceivable that any truths about crowds should 'emerge', apart from the truths about the individuals of which the group consists. Unless there is an actual 'group mind' which thinks and acts in the behalf of the group (apart from the constituent individuals) it is impossible to analyse the behaviour of an assemblage other than by utilization of MI.

6. There are problems, too, with Nozick's treatment of the money regression theorem (the view that a medium of exchange could only have arisen on the free market, entirely apart from government or 'group' agreement, or social contract) as an example of MI.

First of all, this issue has nothing whatsoever to do with MI! The truth of

MI and the money regression theorem are completely independent. Either could be true with the other false. A monetary medium of exchange, for example, could have been precipitated not from the everyday voluntary exchanges of bartering individuals, but by prior group fiat, as far as MI is concerned. For MI says no more than that all group actions can be traced back to, and understood in terms of, the actions of individual people. If a group decision *was* responsible for the creation of money, the doctrine of MI would only insist that this group decision had its counterpart in the decisions of all the participating members of society; that if at the time a monetary unit was adopted, none of the *individuals* in the economy acted in accordance with it, then it would have been impossible for money to have come into existence in this way.

On the other hand, individual free-market activities might have 'naturally' resulted in the creation of money, as the Austrians contend, but this would not prove, or even indicate, that MI is correct. For a methodological collectivist could also believe this. After all, methodological collectivism (the denial of MI) need not take the extreme position that *all* events are to be attributed to a group mind. Nor take the view that *all* human interactions contain elements that are inexplicable in terms of 'mere' individuals. No. The moderate methodological collectivist can (more reasonably) take the stance that only some events are to be so explained.

Secondly, Nozick happens to be incorrect in his substantive (but irrelevant) allegation; although, to be sure, it is not an obvious and blatant self-contradiction to suppose that the institution of money arose by acclaim or by social contract, this makes no economic sense whatever. And yet, the only reason Nozick gives for his position is that '[i]t cannot [be shown] that a social contract *could not* actually give rise to [the creation of money]'.¹⁶

Let us consider, as an antidote to Nozick's agnosticism on the question of money creation, what is involved in the creation of money *de novo*. We make the assumption that the main motivation to accept money in payment for goods or services is the possibility of using it, in turn, as a means of payment for still other goods and services. Money, unlike consumption goods, then, has no necessary intrinsic value to the individual; its value is derived from its ability to be utilized in future transactions.

In the Austrian explanation of how money grew out of a barter system, some goods (salt, copper, gold, cows, sugar) were more marketable and widely accepted in trade than others. People began desiring them not only for their intrinsic properties as producers' or consumers' goods, but *also*

for their ability to facilitate transactions. This gave added impetus to the desire to hold some of these goods for their increased 'money-ness'. Eventually, the market settled on one (or two) commodity, usually gold (and/or silver) as its medium of exchange.

Suppose, now, that a group of public-minded citizens had attempted to short-circuit this procedure, at its beginning. That is, before the market participants had come to accept any commodity as more marketable than any other, this group had approached individuals and offered them 'Nozicks', which are green pieces of paper looking remarkably like present U.S. dollar bills, for their use as money. This would entail their attempt to *purchase* the goods and services of people with these 'Nozicks'.¹⁷

Now, what are the odds that any of our 'ignorant' bartering individuals would have agreed to part with a single bit of his property for even millions of 'Nozicks' which to him could only appear to be funny-looking pieces of green paper? What, even, is the likelihood that he would accept the 'Nozicks' if they were given to him, in the honest expectation that he would be able to use them as a medium of exchange? The chances are pretty slim, for in order to suppose that either the gift or the purchase could be used so as to introduce 'Nozicks' which had no previous objective exchange value, we would have to assume that other market participants would accept them, and that each person approached with these green pieces of paper would count on their being so accepted in future trades. The chances of these occurrences taking place are not just 'slim'; they are *impossible* (in all but the sense of the word in which no self-contradiction, or *logical* impossibility is committed by supposing market acceptance).

But there are further difficulties with this supposition. Even making the truly heroic assumption that all market participants were somehow beguiled into accepting the green pieces of paper as money, what rate of exchange between the 'Nozicks' and the bartered goods and services would be established? The problem is that any and all rates would be completely *arbitrary*. There never having been established an objective exchange value for the 'Nozicks' in the barter economy, any rate of exchange, or set of prices would be as proper as any other.¹⁸

7. Nozick next launches into a discussion of MI and institutions, holding that the latter 'are not merely sums of particular act tokens', on the ground that 'if the person hadn't done those particular act tokens, he would have done other similar ones, or when if this person didn't occupy an office or role, another would have who would have acted similarly'.¹⁹

Nozick seems to be far out on a limb in his claim, in effect, that for any action, if *X* doesn't do it, there will always be a *Y* who will. On a perhaps superficial, simplistic, and commonsensical level, it just doesn't appear to be true. Surely individual decision-making can at least *sometimes* make a difference. What evidence can there be for the counterfactual conditional claim that if Kennedy hadn't blockaded Cuba, then another president in his place would have carried out this very act? Common-sense observation will lead us to reject this claim.

There is also a tinge of determinism in Nozick's remarks: that since institutions are more than the acts of individuals, they have an independent power to shape or direct the choices of economic actors. But surely it is more nearly correct to speak of institutions as *affecting* individual decision-making. And since institutions are merely complexes and patterns of individual acts,²⁰ no more, there is nothing over and above the actions of individual people which can serve as the raw material out of which future such actions are influenced.

The institution of marriage certainly proscribes, limits, and channels the actions of millions of people. But there is nothing here that is inconsistent with MI, since this institution consists *solely* of a complex pattern of individual actions.²¹ There are not two kinds of things – individual actions and institutions. Rather, they are one and the same, looked at, perhaps, from two different perspectives. Human history is the story of the unfolding of actions which lead to other actions which lead to further ones, in a, so far, unending chain. The fact that some commentators have called some of these complex patterns of individual actions 'institutions' should not confuse the issue, and lead us to believe that there is anything apart from such separate human actions.

Nozick's false dichotomy, however, leads him along this very path. It accounts for his 'apparent chicken and egg situation': which came first, institutions or individual human action?

There can be no better answer to this dilemma than that provided by Ludwig von Mises:

Now the controversy whether the whole or its parts are logically prior is vain. Logically the notions of a whole and its parts are correlative. As logical concepts they are both apart from time.²²

That there are nations, states, and churches, that there is social cooperation under the division of labor, becomes discernible only in the actions of certain individuals. Nobody ever perceived a nation without perceiving its members. In this sense one may say that a social collective comes into being through the actions of individuals. That does not mean that the individual is temporally antecedent. It merely means that definite actions of individuals constitute the collective.²³

8. We next turn to Nozick's treatment of evolutionary biology, where he claims that 'evolution may have instilled desires which themselves refer to institutional or particular social situations'.

So far there is no disagreement with the Austrians. As Mises himself states:

Individual man is the product of a long line of zoological evolution which has shaped his physiological inheritance. He is born the offspring and the heir of his ancestors, and the precipitate and sediment of all that his forefathers experienced are his biological patrimony.²⁴

But from this undisputed set of premisses, Nozick concludes that 'social scientific explanations of current behavior would have to admit (innate) desires or reinforcers for which *macro-social reference* would be needed to specify either what is desired or the conditions under which the desire is operative'.²⁵ In other words, claims Nozick, because of the fact that man is not brought into this world as a 'tabula rasa', but rather as dependent upon the evolutionary factors which affected his predecessors, this leads to the conclusion that the insistence of MI upon *micro-social reference* is suspect. But why, it may be asked, just because much (some?) of man's behaviour is biologically influenced, need we believe that there is something over and above *individual* action? How do innate desires lead to the existence of a 'group mind'? MI, as we have seen, does not insist that each individual is an atom, completely unaffected by the behaviour (past or present) of others. We are forced to take the position, then, that there is nothing in the teachings of evolutionary biology that necessarily contradicts MI.

9. Nozick next focuses on the question of how utility functions are shaped, taking the view that praxeologists have been remiss in not providing at least a general theory²⁶ as to how this phenomenon takes place. Our author states that '[t]he Austrian tradition has devoted little attention to this question' (p. 360), but in truth, praxeologists have devoted no time to it *whatsoever*. For this school of economics takes as its task the treatment of the logical implications of the category of human action. The actual content of choice is of interest only to psychology, or history. Mises makes this claim in stark fashion: 'Praxeology is not concerned with the changing content of acting, but with its pure form and its categorical structure. The study of the accidental and environmental features of human action is the task of history.'²⁷

10. The last point which will concern us in the first section is Nozick's

claim that even if MI were completely true, no consequences for the practice of social science need follow from it. The reason for this is straightforward. For Nozick, if MI is true, this means that the macro- and the micro-level are equivalent: statements in the former sphere are reducible to those in the latter. If so, it doesn't matter whether we deal with the individual decision-maker or with the entire economy. Abstracting from the question of whether or not any macro-statement has actually been reduced to its micro-counterpart, the equivalence implicit in reductionism certifies that all true statements on either level of discourse will be matched by true statements on the other. Nor, given this equivalence, does it matter much whether one *starts* with the theory of human action and 'work[s] one's way up',²⁸ or presumably, begins with the macro-level, and works one's way down to the individual.

This view is seemingly supported by an analogy from the physical sciences. Just as macroeconomics is reducible to microeconomics, so is biology reducible, in principle, to physics and chemistry. And just as one would scarcely be justified in rejecting all of biology merely because theories in this sphere have not yet been reduced to physics and chemistry, so would one not be correct in rejecting macro- in favour of micro-economics. Nor is there any presumption that the scientist should start with either level in preference to the other.

All this would be correct if the analogy to the physical sciences held up. Unfortunately for Nozick's interpretation, it does not. Both biology, on the one hand, and chemistry and physics, on the other, are able to offer causal explanations of occurrences in their respective fields. They both have propositions that are true within their own realm, independent of the others (albeit perhaps [mutually] reducible in terms of them). But the same does not hold true in the case of economics. For the claim of the Austrians is that although *microeconomics* is correct in its own terms, able to trace phenomena back to the causal agents (individual decisions), macroeconomics includes only artificial constructs which, apart from the individual choices upon which they are very indirectly based, have no causal explanatory power on their own. There are, to be sure, statistical correlations between various of the macroeconomic aggregates. But cut off from the *purposes* of human actors, the only causal agent in economics, they are powerless to form part of a causal genetic chain.²⁹

Gerald P. O'Driscoll and Sudha R. Shenoy say in this regard:

We find, quite inconsistently, an aggregative analysis, utilizing holistic macro-constructs

that are treated (wrongly) as if they interacted directly with one another. This procedure entirely ignores the microeconomic . . . process, which actually determines the real structure of (economic reality).³⁰

And, says Ludwig von Mises,

All that happens in (economic reality) is actions of individuals and groups of individuals acting in concert. But macroeconomics proceeds as if all these individual actions were in fact the outcome of the mutual operation of one macroeconomic magnitude upon another such magnitude.³¹

Thus we cannot accept Nozick's equation of MI with the reducibility of the macro- to the micro-level. On the contrary, as we have seen, there are grave differences between them. There are, therefore, important practical implications that follow from the acceptance (or rejection) of MI. It is not true that statements in the two spheres are translatable in terms of each other. One is built up out of artificial aggregations, divorced from human purpose and action, and limited to statistical correlations between such constructs. The other suffers from no such drawbacks. The equivalence hypothesis, then, must be rejected.

And what of a possible Nozickian response that even if we are correct in the foregoing, that microeconomics, not macroeconomics, offers the possibility of causal explanations, it is still possible to maintain the position that it does matter from which end we start the construction of our social theory?

Mises has expressed himself on a related topic as follows:

Those who want to start the study of human action from the collective units encounter an insurmountable obstacle in the fact that an individual at the same time can belong and – with the exception of the most primitive tribesmen – really belongs to various collective entities. The problems raised by the multiplicity of coexisting social units and their mutual antagonisms can be solved only by MI.³²

Mises is thus placing an irresistible road block in the way of macroeconomic theory's *succeeding* in explaining economic reality. 'How can an aggregative hypothesis triumph', this version asks, 'if it is conceded that a necessary condition for explanation is to base occurrences on individual actions, and also that most individuals belong to a myriad of groups. The tie between the individual and the collective must inevitably be broken.' In this construal, Mises is entirely correct.

II. The *A Priori*

Nozick begins this section with a series of charges which are evidence, he alleges, of the failure of the Austrian theoreticians, Mises and Rothbard.

1. As an example, he calls for 'a clear, precise, and consistent statement of the content of the (*a priori*) theory within a specified vocabulary of primitive terms and with explicit definitions and axioms' (p. 362).

We can answer this in several ways. On one level, the entire contents of Rothbard's *Man, Economy and State* and Mises's *Human Action* may be looked upon as the definition or statement of the contents, implications, and ramifications of Austrian *a priori* praxeological theory.

More specifically, the first two dozen pages of *Man, Economy, and State* (and indeed, its entire first chapter) are devoted to a clear outline of praxeological theory. Rothbard begins by defining the basic premiss as human action, or purposeful, motivated, forward-looking behaviour (p. 1). On the very next page he starts to derive logical implications of this axiom: methodological individualism, expectations (p. 2), the importance and the fact of the scarcity of time (p. 3), choice, the scarcity of economic means, valuation (p. 4), uncertainty of the future (p. 5), error (p. 6). The very topic headings in his Chapter 1 give further evidence of the clear and precise outline of praxeological theory.

Although this is not the time or place to summarize Austrian theory, we might cite one further 'clear, precise, and consistent statement' of its basic theoretical outline. Murray N. Rothbard states:

Praxeology contains one Fundamental Axiom – the axiom of *action* – which may be called *a priori*, and a few subsidiary postulates which are actually ('broadly') empirical. . . . What are these (subsidiary) propositions? We may consider them in decreasing order of their generality: (1) *Variety* of resources, both natural and human. From this follows directly the division of labor, the market, etc., (2) *Leisure is a consumer good* . . . (3) Indirect exchanges are taking place, and least important, (4) firms always aim at maximization of their money profits.³³

2. Nozick asks that 'such a statement should make clear whether preference is initially over actions or outcomes' (p. 362). One would have hoped that such a matter would have been clear from the general context of human action itself, if not from any specific statement. Surely, on this, the human side of omnipotence, it is not within man's province to choose *outcomes*? On this earth at least, it can only be man's lot to decide upon his own actions. If they are blessed with the outcome he was aiming at, well

and good. If not, the actor must 'go back to the drawing board', and plan anew.

This matter can be resolved by the very second sentence of *Man, Economy and State*: 'Human action is defined simply as purposeful behavior' (p. 1). Since 'purposeful behaviour' is used by praxeologists as a synonym for 'human action' it is crystal clear that preference can initially be over only *actions*, and not *outcomes*.

3. Nozick is unsure as to which term is basic in the Austrian view ('preference, satisfaction, desire') and which are subsidiary, and hence defined in terms of the primitive expression.

It is, however, clear that *action* is the basic focal term in the Austrian universe. Rothbard calls '[t]he existence of human action the Fundamental Axiom (the nub of praxeology)',³⁴

Moreover, Mises holds that action is more basic than preference:

Action is not simply giving preference. Man also shows preference in situations in which things and events are unavoidable or are believed to be so. Thus a man may prefer sunshine to rain and may wish that the sun would dispel the clouds.³⁵

True, the answer to the question, 'Why does man act?' can only be answered in terms of 'an improvement of his own state of satisfaction',³⁶ or to gain 'relief from a felt uneasiness',³⁷ or some such. And one, therefore, might be tempted to say that these terms are in some sense more basic than the action which is motivated by them. One might concede that from the psychological point of view, the three terms mentioned by Nozick are more basic and important than human action. But from the *praxeological point of view* this is not so. Here, human action is of the essence. Thus Mises:

The field of our science is human action, not the psychological events which result in an action. It is precisely this which distinguishes the general theory of human action, praxeology, from psychology. The theme of psychology is the internal events that result or can result in a definite action. The theme of praxeology is action as such.³⁸

4. Nozick expresses the hope that the *a priori* science of praxeology 'would be sophisticated enough to take account of the considerations of the theory of choice under uncertainty' (p. 362).

The implication that Austrians are unaware of the phenomena of uncertainty must be rejected. On the contrary, uncertainty is an integral part of praxeology.

Says Mises:

The uncertainty of the future is already implied in the very notion of action. That man acts and that the future is uncertain are by no means two independent matters. They are only two different modes of establishing one thing.³⁹

And in Rothbard's view:

Another fundamental implication derived from the existence of human action is the *uncertainty of the future*. This must be true because the contrary would completely negate the possibility of action. If man knew future events completely, he would never act, since no act of his could change the situation.⁴⁰

Moreover, Israel Kirzner's book, *Competition and Entrepreneurship*⁴¹ may be said to be devoted solely to one of the implications of uncertainty: the fact that markets are never in equilibrium in the real world. Without uncertainty, Kirzner contends, there would be no scope for entrepreneurship, the driving force of the market process.

If anything, Nozick's criticism of Austrianism on the grounds of ignoring uncertainty would be far better levelled at its opponents, the orthodox economists who make a fetish out of states of equilibria, where uncertainty has little or no role to play. This charge of Nozick's is particularly unfortunate, since it is the Austrian school that has made the study of the (disequilibrium) implications of uncertainty a matter of great contention with mainstream economists.

5. Nozick chides the Austrians for failing to consistently 'distinguish in the presentation of the theory what it is expected *will* happen from what it is thought *might* happen' (p. 362).

Stated in this form, this charge is very difficult to refute. First, Nozick gives no citations for this 'error', so it is not easy to know where to look for confirmation or lack of it. Secondly, he calls for the consistent distinction between these two terms, implying perhaps that while Austrians usually are not guilty of any improprieties with regard to them, somewhere, someone calling himself an Austrian failed to give full credence to this vital distinction. Thus no number of quotes showing praxeologists paying due regard can rebut his claim.

What to do? It seems appropriate at this juncture merely to call for evidence of this error on the part of those who claim it.

6. Nozick calls upon Austrians to 'avoid Mises's unfortunate tendency to speak as if the outcome of an action is preferred to the current situation (it need not be) rather than to what *would* obtain if the actions weren't done' (pp. 362-3).

But we can see this in Mises's setting forth the exact sentiment that Nozick calls for, in almost identical words:

Action is always directed toward the future: it is essentially and necessarily always a planning and acting for a better future. *Its aim is always to render future conditions more satisfactory than they would be without the interference of action.* The uneasiness that impels a man to act is caused by a dissatisfaction with expected future conditions as they would probably develop if nothing were done to alter them.⁴²

Also:

Man acts because he is dissatisfied with the state of affairs as it prevails in the absence of his intervention.⁴³

Men . . . resort to definite means in order to preserve or to attain a definite state of affairs different from that which would prevail if they abstained from any purposeful reaction.⁴⁴

Even Professor Claudio Gutierrez, a staunch critic of Austrian theory, can be used to refute this contention of Nozick's. For he disapprovingly cites the following as a widely held belief of the praxeological school:

All action aims at rendering conditions at some time in the future more satisfactory for the actor than they would have been without the intervention of the action.⁴⁵

7. Professor Nozick next launches into an attack on how Austrians deal with the future. 'More care . . . is needed in stating the future orientation of action', says the good professor, 'for the point of an act may merely be to do it, or to be continuing a previously started plan, or to be following a previous commitment' (p. 363).⁴⁶

Nozick is incorrect, however. The fact that one is merely 'continuing a previously started plan or . . . following a previous commitment' is irrelevant. These are only psychological explanations of *why* the individual is acting as he is. The fact that he *is* so acting is sufficient to prove that his present act is future oriented. For 'if the desired ends could all be attained instantaneously in the present, then man's ends would all be attained, and there would be no reason for him to act'.⁴⁷

What of the claim that 'the point of an act may merely be to do it'? If we interpret this literally as a completely non-future oriented 'act', then we must deny that it is an act at all. If it is instantaneously available, then no human action with regard to it is necessary; no choice must be made; no purposes need be planned for. As I have stated in response to the Gutierrez criticism of this point:

If a goal could be attained instantaneously, so that it did not have to wait until the future for satisfaction, there would be no scarcity of the means to effect it. But economics is the science of *scarce* means. Therefore, economics can have no part to play with respect to such an occurrence.⁴⁸

On the other hand, we may understand 'doing something merely to do it' as the more usual 'doing something for the hell of it' or 'doing something on the spur of the moment'. But in these translations, the Austrian insistence on the future orientation of all acts holds true. Be the action ever so frivolous or haphazard, there is still a purpose in the mind of the actor, means applied in a goal-directed manner. Even if the act in question is merely to drink oneself into a sodden stupor, one must still plan *now* (order the booze, sit down, and imbibe, etc.) for the *future* pleasures of oblivion.

8. Nozick calls Mises to task for speaking 'of acting man [as] necessarily ignoring sunk costs' on the grounds that it is 'irrational to consider them' (p. 363). In other words, Nozick objects to Mises's supposed contention that acting man will always act rationally. This is correct as far as it goes, but misleading. It does not mean, for example, that Mises thinks that no human being can ever make mistakes. On the contrary, says Mises:

It is a fact that human reason is not infallible and that man very often errs in selecting and applying means. An action unsuited to the end sought falls short of expectation. It is contrary to purpose.⁴⁹

What it does mean is that the Austrians focus on the irreducible core of rationality involved in every human action. Given that acts, however bizarre they appear to the outside observer, are motivated by *some* purpose or other, it is always possible to see action as 'rational, i.e., the outcome of a reasonable – although faulty – deliberation and an attempt – although an ineffectual attempt – to attain a definite goal'.⁵⁰

Professor Israel M. Kirzner demonstrates the praxeological attempt to 'tease out' the core of rationality from *every* human action:

The man who has cast aside a budget plan of long standing in order to indulge in the fleeting pleasure of wine still acts under a constraint to adapt the means to the new program. Should a fit of anger impel him to forgo this program as well and to hurl the glass of wine at the bartender's head, there will nonetheless be operative *some* constraint – let us say the control required to ensure an accurate aim – which prevents his action from being altogether rudderless. It is here that praxeology has grasped the possibility of a new scientific range of explanation of social phenomena. Precisely because man's actions are not haphazard, but are expressions of a necessity for bringing means into harmony with ends, there is room for explanation of the content of particular actions in terms of the relevant array of ends.⁵¹

9. In Nozick's view, it is *sometimes* rational (not in the Misesian sense where all action has a core of rationality, but in the ordinary sense of 'proper', 'efficient', 'efficacious', etc.) to ignore sunken costs.⁵² I take Nozick to be saying that the 'people in restaurants . . . whose food has come and turned out to be poor tasting . . . [and who] *speak* as though the reason they're going ahead to eat it is that money has already been committed to it' (p. 363) are ignoring sunk costs and are not thereby necessarily acting in an uneconomic manner.

Nozick then states that 'it is not *impossible* that letting something he's paid for go uneaten has disutility for that person' (p. 363). This is, of course, true. Conceivably, a person could single out all instances where sunken costs might be taken into account, and so order his preferences⁵³ that he benefits more by taking them into account than by ignoring them. Nozick is actually over-modest in his claim. Not only is it not 'not impossible' for a person to adopt this atypical set of utility orderings, we can go so far as to say that there is nothing in all of praxeological theory (which takes ends as ultimate givens)⁵⁴ that could even cast aspersions on this particular preference, or claim for it a lesser status than that enjoyed by any other.

The Austrian objection to this response, therefore, has nothing to do with a denial of the phenomena of psychic income. Indeed, praxeologists have been vociferous in trumpeting its importance.⁵⁵ The problem with Nozick's objection is that it ignores the implicit *ceteris paribus* qualification. There is *no* basic economic law (downward sloping demand, the dynamic stability of equilibrium, the law of marginal utility as well as the irrelevance of historical costs to action) that could not be turned on its ear with a little judicious use of an awkward psychic income assumption (consumers may like to buy more at higher prices, in order to confound the law of demand). There is *always* an (implicit?) assumption of 'other things being equal'.⁵⁶

10. Nozick suggests that Austrian theory

be formulated so that even though preferring is a subjective psychological state, the ultimate things which are preferred one to another *need not* themselves be subjective psychological states (such as felt satisfactions or dissatisfactions, or removals of such things). (p. 363)

His reasons are spelled out in his National Book Award-winning *Anarchy, State and Utopia*, where he poses

the experience machine that would give you any experience you desired. Superduper neuropsychologists could stimulate your brain so that you would think and feel you were writing a great novel, or making a friend. All the time you would be floating in a tank, with electrodes attached to your brain.⁵⁷

He points out, quite brilliantly, with the aid of this example, that we would *not* choose to be so immersed; that on the contrary, we want more than the experience machine: 'We want to *do* certain things, and not just have the experience of doing them.'⁵⁸

One is sorely tempted to agree with this last statement. Who wants to be pickled in brine, after all, even while enjoying the most delightful fantasies? But if asked why we want to *do* certain things, isn't the answer, 'Because it feels good, or satisfies me, or removes felt uneasiness' inescapable?⁵⁹ Granted that we want more than the satisfaction that usually accompanies doing things, that we want the thing *itself*, it cannot be denied, also, that we do things because of the subjective feelings which ensue. The truth seems to be that we want the *experience* of actually *doing* the thing, not merely the (very similar, identical?) experience we could get while immersed in liquid, without doing anything but feeling good, nor yet, if it were possible, to *do* the thing itself *without* any feelings of success, accomplishment, or satisfaction.

So it is possible, in spite of Nozick's objections, to agree with Mises that 'strictly speaking, the end, goal, or aim of any action is always the relief from a felt uneasiness'.⁶⁰ However, one should note that this claim, concerned as it is with the *motivations*, not the *implications* of action, belongs to the domain of psychology, and not that of praxeology, proper.

11. Nozick next ventures into the question of whether 'behavior which falls under the principles of operant conditioning [is] action?' (p. 364). Since operant conditioning uses 'rewards and punishments, positive and negative reinforcements [to] . . . raise and lower the probability of various behaviors', Nozick's question is equivalent to asking if human behaviour subject to reinforcement is to be considered human action.

But surely the obvious response is that (virtually) *all* human behaviour is 'conditioned' in this sense.⁶¹ In fact, 'operant conditioning' seems to be no more than a synonym for 'being convinced, or persuaded'. One shudders to equate a view of Nozick's with any of Galbraith's, but if the Galbraithian shoe fits the Nozickian foot . . . one cannot disregard it. Nozick's attempt to deny the status of human action to 'operant be-

behaviour' resembles nothing if not Galbraith's diatribes against advertising.⁶²

12. Does animal behaviour constitute 'action' for Austrians? wonders Nozick. There are several discussions in the Austrian literature. In Rothbard's view, 'animal behavior, from the lower organisms to the higher primates, . . . might be considered as on a borderline between purely reflexive and motivated behavior'.⁶³ But he also states that

the fact that men act by virtue of their being human is indisputable and incontrovertible. To assume the contrary would be an absurdity. The contrary – the absence of motivated behavior – would apply only to *plants and inorganic matter*.⁶⁴

He is thus careful *not* to deny the possibility of motivated behaviour for animals.

Mises seems open to the possibility that the animals are capable of purposive action.⁶⁵ He is nonetheless clear in limiting the concerns of praxeology to strictly human affairs.⁶⁶

Even though animals do not, strictly speaking, fall within the province of praxeology, our understanding of their behaviour can be enhanced by this discipline. Says Mises:

As far as animal behavior goes beyond mere physiological processes like breathing and metabolism, it can only be investigated with the aid of the meaning-concepts developed by praxeology.⁶⁷

Without praxeological categories we would be at a loss to conceive and to understand the behavior both of animals and of infants.⁶⁸

And Rothbard:

Men can *understand* (as distinguished from merely observe) such behavior only insofar as they can impute to the animals motives that they can understand.⁶⁹

We must conclude then, albeit tentatively, that (operant) behaviour of animals is purposive action, at least sometimes, and partially, although it is action that falls outside the main interest of Austrians.

13. Nozick next regales us with a speculation to the effect that even though Austrian theory is *a priori*, and Skinnerian theory is *a posteriori*, the latter may be 'better, more predictive, wider ranging' (p. 365).

There are two criticisms that can be made of this view. First, if the premisses with which an *a priori* system begins are true, and the logical derivations of the intermediate steps are free of error, then the conclusions are *absolutely and apodictically true*. Since Nozick (or anyone else) has

not shown either that the basic premisses or the deductions therefrom are mistaken, he cannot deny the certainty with which it is possible to hold the conclusions. In contrast, the conclusions which flow from the Skinnerian system, if they are correct, *must* be accepted tentatively, since it is always possible that further inductive evidence may come along to disparage present conclusions.

An analogy comes to mind. The claim that Skinner's *a posteriori* theory may be 'better' in some sense than *a priori* praxeology is just like saying that (*a priori*) geometry may be surpassed by (*a posteriori*) engineering measurements. Now surely engineering is 'preferable' to geometry in *some* respects (it's more practical, for one thing); but it must be conceded that, at least in terms of conceptual exactitude, the geometrical line which has no width is preferable to the one the engineer must perforce work with.

The second problem with saying that Skinnerian theory may be 'better' than 'human action theory' is that this is like comparing 'apples and oranges'. The purposes of the two are in no ways comparable; one cannot be 'better' than the other. Skinner, as a psychologist,⁷⁰ is trying to *explain* human behaviour: how people change their aims under certain (operant) conditions; Austrians, on the other hand, as economists, attempt to unveil the *logical implications*⁷¹ of human action. We cannot accept, then, Nozick's contention that 'Skinnerian theory [is] incompatible with human action theory' (p. 365).

14. We can also question Nozick's view that ability to predict is a valid criterion of the success of a hypothesis in economics (p. 365).

This view, which sees the social sciences as akin to the natural sciences, where prediction is a legitimate criterion of success, has elicited widespread agreement. Nevertheless, the Austrians have put forth compelling reasons for reconsideration.

One reason is that natural science, but not the science of human action, is able to take advantage of controlled experiments. By varying one element at a time in an experiment, the natural scientist is able to make a clear determination as to the effects of any one of them. Then, when the cause appears in nature, he is able to predict that the effect will result.

In economics, however, events are the results of the interactions sometimes of the conflicting plans, purposes, and intentions of hundreds, if not thousands or millions of people. It is impossible to isolate any one strand and to hold it unambiguously as the causal agent for any event. Mises says in this regard:

'The experience with which the sciences of human action have to deal is always an experience of complex phenomena. No laboratory experiments can be performed with regard to human action. We are never in a position to observe the change in one element only, all other conditions of the event remaining unchanged.'⁷²

Another difference between the physical sciences and those of human action is that the material studied by the former, for example the reactions of copper to other elements, can be relied upon to be unchanging. This cannot be taken for granted concerning the reactions of human beings. In the words of Mises:

What distinguishes the sciences of human action is the fact that there is no such foreknowledge (as there is with regard to copper, for example) of the individuals' value judgments, of the ends they will aim at under the impact of these value judgments, of the means they will resort to in order to attain the ends sought and of the effects of their actions insofar as these are not entirely determined by factors the knowledge of which is conveyed by the natural sciences. (Material in brackets supplied by present author.)⁷³

A third circumstance militating against the possibility of prediction⁷⁴ is a phenomenon we have touched upon above: psychic income. As we have seen, it is possible, if not likely, for an individual to act in such a way as seemingly to violate basic economic postulates, if we assume he derives a great enough psychic benefit from acting against his own (otherwise) economic interest.

Suppose, then, that we predict that *A* causes *B*, see an *A*, and, therefore, predict a *B*. And suppose that *B* does not ensue. Are we to reject our theory according to which *A* causes *B*? Not unless we can definitively rule out the possibility that a group of people knowing of our expectation that *B* would follow *A*, and determined to wreck our prediction, acted in such a way as to prevent *B* from appearing on the heels of *A*. But we are never in a position to make any such determination!

Compare this with the situation which prevails in the natural sciences. Has anyone ever accused a copper molecule, or a group of them acting in collusion, of purposefully acting in such a way as would disprove any chemical laws based on the reactions of copper? Merely to pose such a question shows how ludicrous is the suggestion.

15. We next confront Nozick's claim that it is 'important[t] for the Austrian view that there be nothing *else* close to (human) action' (original emphasis) and his supposition that there is. Then, he argues, 'detailed empirical investigation' (p. 365) would be called for, and

[t]he *a priori* character of the theory of human action would be of *no help* in deciding whether it was true of a behavioral situation, and economics would be carried on in as empirical a manner as any other science'. (p. 366, original emphasis)

Nozick asks whether there is a 'great enough gulf between human action and other human behaviors' so as to make easy distinction possible (p. 366). Since the relevant defining characteristic of human action is 'purposeful', 'other human behaviors', whatever else this may mean, would have to be non-purposeful. It is, to be sure, not possible to distinguish between purposeful and non-purposeful behaviour on an *a priori* basis; it can only be done empirically.

But the 'problem', if it is such, is very much less vexing than Nozick would have us believe. We must remember that for him, the vital distinction is between behaviour subject to operant conditioning, on the one hand, and purposeful, motivated human action on the other. Here, we agree, it would be difficult if not impossible to draw any boundary line. But that is exactly our point: since we have interpreted operant conditioning as merely persuading, or convincing, and see no difference, in principle, between behaviour so conditioned and purposeful, motivated human action, the distinction for us between human action and other human behaviours is one between purposeful and non-purposeful activity, not between action which results from persuasion, and that which is purposeful. In our view, for example, we need only distinguish between purposeful activities such as buying, selling, producing, etc., and such non-purposeful behaviour as sleepwalking, the knee-jerk reflex, Freudian slips of the tongue, etc. And this sort of distinction certainly presents no problem for modern economics, nor is it even relevant to our concerns.

There is, however, a sense in which the point Nozick raises has relevance and importance for the explication of praxeology. And that is to show the part played by empirical work in the Austrian world-view.

Clearly, for the Austrians, economic *theory* is completely devoid of any empirical role, while it is necessary, although not sufficient, for an understanding of economic *history*. Experience is also vitally important in determining the *applicability* of apodictically certain economic theory. With regard to the latter, Rothbard explains:

All these elaborated laws are absolutely true. [But] they are only *applicable* in concrete cases . . . where the particular limiting conditions apply. There is nothing, of course, remarkable about this; we can enunciate as a law that an apple, when unsupported, will drop to the ground. But the law is applicable only in those cases where an apple is actually dropped.

The praxeologist always has in mind the proviso that where this subsidiary postulate does *not* apply [as in the case of the ne'er-do-well nephew], his deduced theories will not be applicable.⁷⁵

And Mises says:

Only theorems based on the assumption that labor is a source of uneasiness are *applicable* for the comprehension of what is going on in this world. (emphasis added)⁷⁶

Experience, then, and only experience, can tell us whether or not an apple is unsupported, whether there is a ne'er-do-well nephew in the picture whose welfare is relevant to the psychic income of the owner, whether labour is distasteful. Only when we know these things does our *a priori* deductive system come into play. Thus does pure economics retain its *a priori* character, while room is found, in the Austrian system, for empirical work in economic history, in economic explanations of the real world.

But note how different here is the employment of the term 'empirical' from its ordinary use in economics. The Austrians use it to denote the applicability of a *prioristic* economic law to reality (and, in the case Nozick raises, to distinguish purposeful and non-purposeful behaviour); on the part of establishment economists, empirical work is done in order to 'test' the truth of economic hypotheses.

16. We now consider Nozick's examination of the phenomenon of *Verstehen*. He begins by citing Ernest Nagel⁷⁷ as one of the '[c]ritics of *verstehen* [who] have claimed that it is at best a route to thinking up hypotheses, and not a way of coming to know which hypotheses are true' (p. 366).

Without commenting on the competence of the criticism that Nagel levels against the versions of *Verstehen* he deals with, we may note that his treatment is unfortunately irrelevant to the *Austrian* view of *Verstehen*. Not only does Nagel not cite Mises on 'understanding' in economics and history, his comprehension of the phenomenon is radically different. For example, Nagel seems to see *Verstehen* in terms of empathy and sympathy,⁷⁸ but Mises is on record as *distinguishing* empathy and sympathy from *Verstehen*, or understanding.⁷⁹ Further evidence that Nagel and Mises do not mean the same thing by 'Verstehen': although Nagel does mention 'a complex set of social conditions' (p. 482), he does not denote by this phrase what Mises means by 'complex phenomena'; the Austrians, however, see understanding or *Verstehen* as intimately tied up with complex phenomena.⁸⁰

17. Nozick repeatedly asserts that *Verstehen* cannot eliminate all vestiges of empirical examination, observation, etc.; that the Austrian concept of understanding is not valid using *a priori* reasoning alone (pp. 367–9). There is of course nothing wrong with this contention; nor have the praxeologists ever denied it. What seems amiss, however, is that Nozick apparently believes that Austrians hold the opposite view.

But the record is clear. Mises says in *Human Action*:

The *a priori* sciences – logic, mathematics, and praxeology – aim at a knowledge unconditionally valid for all beings endowed with the logical structure of the human mind. . . . Historical understanding can never produce results which must be accepted by all men.⁸¹

And in *The Ultimate Foundation of Economic Science*:

There are two branches of the sciences of human action, praxeology on the one hand, history on the other hand.

Praxeology is *a priori* . . .

The other branch of the sciences of human action is history. It comprehends the totality of what is *experienced* about human action.⁸²

Understanding does not deal with the praxeological side of human action. It refers to value judgments and the choice of ends and of means on the part of our fellow man. It refers not to the field of praxeology and economics, but to the field of history.⁸³

18. The last issue to be covered in this section is Nozick's consideration of the individual's understanding of his own motivations and behaviour.

[M]ost people do not think they *always* act to reduce their own felt uneasiness, etc. Hence, if Mises is right, these people's empathetic understanding of their *own* behavior is sometimes faulty. (p. 389, Note 27)

Nozick is of course right. People say all sorts of things and there is no reason to doubt that some of them have denied that they always act so as to reduce their own felt uneasiness. But Mises's views of *Verstehen* by no means commit him to be bound by what the average person *says* or *thinks*, nor by the (faulty) praxeological *analysis* that a person may make of his own acts. Only by what forms his human *action* takes. Mises says:

What a man *does* is always aimed at an improvement of his own state of satisfaction. In this sense – and in no other – we are free to use the term selfishness and to emphasize that action is necessarily always selfish.⁸⁴

Another difficulty with Nozick's treatment is that he is really making a psychological not a praxeological point.⁸⁵ But even on a psychological

level the individual need not be the best judge of his own motivations. The phenomenon of the apoplectic person yelling at the top of his voice, 'I'm *not* angry, goddammit!' is too widely known for this to occasion any surprise.

III. Indifference

1. Nozick begins by analysing the following 'Austrian' statement:

If a person does an action *A*, then that person preferred doing *A* to doing any other act which (he believed) was available to him at the time. (p. 370)

He sees this as incorrect: 'doing *A* does *not* show he was unwilling to do *B*.' Nozick continues: 'He might have been willing to do *B* also. Thus, doing *A* does not show the person preferred doing it to doing *B*' (p. 370).

It is of course true that doing *A* does not show *unwillingness* to do *B*. The person might have been willing to do *B* too (under other circumstances, presumably). But the fact that he picked *A* when *B* was available certainly shows that he preferred *A* to *B*, at least at that point in time. The fact that the person might have been willing to do *B* also (under other conditions) cannot be converted into a denial of the fact that, at least at the time that he made the choice, he preferred *A* to *B*. If picking *A* instead of *B* when both were available is not enough to establish that *A* was preferred to *B*, what, may we ask, would establish this?

Nozick defines weak preference as:

[T]he person prefers doing *A* to doing *B*, or the person is indifferent between doing *A* and doing *B*. In terms of this relation of weak preference, a person is *indifferent* between doing *A* and doing *B* if and only if he weakly prefers *A* to *B*, and he weakly prefers *B* to *A*. A person *strongly* prefers *A* to *B* if and only if he weakly prefers *A* to *B* and he does not weakly prefer *B* to *A*. (p. 370)

Using this language, we can see that the dispute between Nozick and the Austrians concerns *both* 'levels' of preference: For Nozick, choosing *A* over *B* establishes weak, not strong preference; for the praxeologists, it can only establish strong preference. To the latter, weak preference is considered illegitimate, because the concept of indifference, upon which it is based, is itself without foundation.

What reasons does Nozick give in support of his view? He says:

Choosing an act may well be a sufficient condition for weakly preferring doing it to doing one of its alternatives. But it is not a necessary condition for that and, hence, it is not a sufficient condition for *strong* preference. (p. 370)

If choosing *A* over *B* is not a necessary condition for weak preference, then, according to Nozick, one could express weak preference without choosing *A* over *B*. But even granting the contention that one somehow could express weak preference without choosing, *this* does not establish, as Nozick seems to feel, as shown by the use of 'hence' in the above statement, that choosing *A* instead of *B* cannot be a sufficient condition for strong preference. In other words, it may be true that choosing is not a necessary condition for weak preference, and that choosing is not a sufficient condition for strong preference⁸⁶ but the second by no means *logically follows* from the first. It is possible to affirm the first and deny the second without self-contradiction.

2. We turn now to Nozick's defence of the concept of indifference. He begins by pointing to 'indications of indifference':

[F]or example, the person flips a coin between doing *A* and doing *B* and acts on the outcome of the flip; or, the person uses a random device to choose between doing *A*, doing *B*, and flipping a coin to decide between doing *A* and doing *B*, and so forth. (p. 370)

The 'argument from coin flipping' unfortunately fails to establish indifference. If a man flips a coin and on this basis chooses *A* over *B*, we must perforce conclude that he *prefers* *A/B*. If he didn't really prefer *A/B*, he was free to reverse the 'decision' of the coin flip and to pick *B/A*. One cannot assume that people are in thrall to coin flips. They own and control the coin, not the other way around. Whenever someone does not like the choice a random device has 'made' for him, he is free to reverse it.⁸⁷

3. I consider Nozick's next attempt to show the necessity of indifference as one of the most brilliant and creative criticisms that has ever been levelled against any aspect of Austrian theory. Nozick argues that the praxeological views on indifference and marginal utility are incompatible.

Suppose that, for example, a person has a stock of some commodity. This means, of course, that he considers each unit equally useful, desirable, serviceable. (If he did not, then the units, as Nozick says, 'are *not* [of] the *same* commodity' [p. 370].) Let us presume that he has 100 lbs. of butter and now for some reason desires to give up one of these units of

butter. And let us say, further, that he arbitrarily picks one such unit, say the 72nd one.

Nozick would say that 'the person does not prefer giving up *this one* to giving up another one' (p. 390, Note 30). But this interpretation is clearly unsatisfactory. For if the person didn't really prefer to give up *this* (72nd) one, *why did he pick it to be given up?*⁸⁸

So we are forced to conclude that the butter units were not really interchangeable *from the point of view of the actor* involved in the selection process. Thus we seem to be forced to deny that there is ever any such thing as a commodity, surely a ludicrous position.

I think that this problem can be reconciled as follows. Before the question of giving up one of the pounds of butter arose, they were all interchangeable units of one commodity, butter. They were all equally useful and valuable to the actor.

But then he decided to give up one pound. No longer did he hold, or can he be considered to have held, a homogeneous commodity consisting of butter pound units. Now there are really *two* commodities. Butter_a, on the one hand, consisting of 99 one-pound units, each (of the 99) equally valued, each interchangeable from the point of view of the actor with any of the other in the 99-pound set; on the other hand, butter_b, consisting of one pound of butter (the 72nd unit out of the original 100 butter units, the one, as it happens, that he chose to give up when he desired to sell off one of his pounds of butter). In this case butter_a would be preferable to butter_b,⁸⁹ as shown by the fact that when push came to shove, butter_b was jettisoned, and butter_a retained.

Alternatively, we may say that the person was 'indifferent' between all 100 units of butter before and apart from any question of choice coming into the picture. But 'indifference', in this interpretation, existing only in the absence of human action, would not be a praxeological, or economic category, but a vague, psychological one.

A farmer, six months away from market day, may vaguely think that he has a stock of 100 cows, each of which is a homogeneous unit in a commodity called 'cows'. But when he wants to sell one, the veneer of indifference vanishes and he picks a *specific* one (the weakest? the fattest?), showing that when *action* (as opposed to *contemplation*) is taken, there is no room for indifference.⁹⁰

We can see, then, that with this interpretation, there will be no difficulty with regard to the law of diminishing marginal utility. For one thing, this is because we can have our homogeneity (apart from human action) as well

as deny it (when *choice* takes place). Thus, to the extent that homogeneous units of a commodity are required for the operation and application of this law, there is no problem.⁹¹

Moreover, there is a discrepancy between the Nozickian and the Austrian view of the concept of diminishing marginal utility. In the praxeological view, this is an absolutely certain law. It follows from the fact that the actor will always give up the least beneficial use that follows from the loss of one unit of a commodity.⁹² In the psychological view with which Nozick seems to agree, marginal utility need not always diminish with command over increased units of the commodity. There can actually be a realm of increasing marginal utility with extra units, perhaps because the additional units allow the actor to do things that were not possible with fewer,⁹³ or because it takes a few units before he can really begin to enjoy the commodity. ('The second sip of beer tastes better than the first.') The problem with this, of course, is that it would imply that when forced to give up one unit of a commodity, the actor would choose to give up that unit which affords him more satisfaction than those that remain; a manifest impossibility.

4. Nozick zeroes in on the special status accorded 'action' compared to 'talk' and 'preferences' over and above 'beliefs', by the Austrian theorists. He seeks to right the balance in favour of the latter members of each pair. Thus he asserts that 'beliefs sometimes issue in action, and preferences in talk' and asks: '[A]ren't talk and action each the product of beliefs and preferences both?' (p. 371).

But this will not do. For the praxeological school has special and important reasons for the 'unevenness'. There is truth, for one thing, in the old saw that 'talk is cheap!' This bit of 'folk wisdom' is the distillate of years of practical experience which shows that people are capable of lying in speech, but not in their (properly interpreted) actions, 'which speak louder than words'.

Action, on the other hand, as we have seen, always exemplifies preference. As Mises states:

Neither is value in words and doctrines. It is reflected in human conduct. It is not what a man or groups of men *say* about value that counts, but how they *act*. The oratory of moralists and the pompousness of party programs are significant as such. But they influence the course of human events only as far as they really determine the actions of men.⁹⁴

The relationship between action and belief is altogether different. If a

person engages in the action of choosing *A/B*, we are *not* entitled to make definitive statements about his beliefs. Now it may be true, and it probably is, in most cases, that such a person would *believe* that *A*'s properties are better than *B*'s. But it is also conceivable that *A/B* was chosen solely as a result of a coin flip, or is an attempt to foil economic analysts, and that the person has no such beliefs about the relative efficacy of *A* and *B*.⁹⁵

5. Thus far we have implicitly assumed the unambiguity of saying that *A* was preferred to *B*. We have assumed that the actor, as well as outside observers, could know at least what the *A* referred to. Nozick now calls this into question. His reason for this remarkable claim is that 'the behavior performed can be described differently, e.g., "travelling to the first floor", "stepping in this particular place", "exerting a certain pressure"' (p. 371). He goes so far as to suspect that the human actor himself need not know what he preferred (p. 372). He is driven to doubt that 'preference [can] apply to things directly', and thinks, instead, that it can 'appl[y] only via descriptions, via something linguistic-like' (p. 371).

Now the case one has in mind as illustrative of preferring *A* to *B* is a person buying a newspaper for 25 cents. *A* would be the newspaper, and *B* the quarter. This is, seemingly, reasonably unambiguous, but with a little Nozickian imagination it, too, can be converted into something fraught with ambiguity. Is the person buying or renting the paper? Is it a counterfeit coin? Perhaps the buyer thinks that the newspaper is really an elephant? and the seller thinks the coin is a piece of cheese? Maybe he's not really 'buying' it, but rather holding, fondling, taking, spindling, and mutilating it? Maybe it's not buying and selling but mutual gift-giving: the vendor 'gives' the person a newspaper, and the reader 'gives' the vendor 25 cents.

The scepticism that Nozick levels against the pedestrian 'preferring *A* to *B*' is a heady thing. But an equal measure applied to *any* realm of discourse or knowledge would have as grave effects. His is a pyrrhic victory. One would have difficulty not only describing *preference*, but what clothes a person was wearing, the colour and location of a house, indeed, 'travelling to the first floor', an occupation one would have thought was as clear as anything in our kaleidoscopic world.

Nor is it helpful to multiply entities needlessly. To think that we cannot directly prefer things, but can only prefer descriptions of things, or 'linguistic-like' entities, harks back to nothing but the discredited doctrine of sense data.⁹⁶ Of course we can prefer things themselves, and not merely descriptions thereof.

6. We turn next to Nozick's inspired attempt to criticize 'the notion [that] preference does not make sense apart from an *actual action* which exhibits it' (p. 372). Nozick's argument is no less than ingenious: The cost of an act, *A*, for the Austrians, is *B*, the next best alternative (to *A*) that is forgone when *A* is chosen. But this would involve the praxeological school in picking *B* over the other forgone alternatives *C*, *D*, *E*, *F*, . . . *without benefit of an actual action whereby B was chosen and C, D, E, F, . . . set aside*.

Nozick is undoubtedly correct to the extent of saying that we need not be able to pick out *any specific B* and say that *it* is the next best alternative to *A* (the one actually chosen). And this is certainly, as Nozick states, because *it*, *B*, has never been actually picked by any human actor who was faced with the array *A, B, C, D, E, F, . . .*

But when Austrians say that the cost of the choice made is the next best opportunity forgone, they have never stated or even implied that this opportunity cost was necessarily *known*. On the contrary, the usual manner in which praxeologists have viewed opportunity cost has been one of *lack of knowledge, of uncertainty, of vagueness*. G. F. Thirlby, for example, sees alternative cost as

the loss, prospective or realized, to the person making the decision, of the opportunity of using those things in the alternative course of action. *A fortiori*, this cost cannot be discovered by another person who eventually watches and records the flow of those things along those channels. Cost is not something which is objectively discoverable in this manner; it is something which existed in the mind of the decision-maker before the flow began, and something which may quite likely have been but *vaguely apprehended*.⁹⁷

Nozick quite rightly shows that *if* the Austrians contend that a specific alternative cost, say, *B*, need be known, either by the actor himself, or by outside observers, then they cannot also hold that preference can only be indicated by actual choice. For while *A*, the first choice, was actually chosen over all other known alternatives, *B* most certainly was not the subject of actual choice.

But Austrians have definitely not insisted that any specific *B* was the cost of doing *A*. Rather, the contention has been that there is *some* alternative, call it *B*, for purposes of identification, which was the best after *A*, and that this value, *whatever it is*, is the true cost of doing *A*. In so doing, the praxeological school has not violated the maxim that (*specific!*) preferences can only be exhibited through actual action.

In the foregoing paragraphs we have been implicitly assuming an in-

terpretation of 'actual choice' according to which it only makes sense to apply this term when such behaviour could be observed by observers other than the human actor involved. We have stated that Nozick was correct in maintaining that *B*, for example, has never been actually picked by any actor, solely because no one could have been *observed* to have chosen *B* over *C*, *D*, *E*, etc., because the choice of *A* was the only phenomenon available to outside observation.

We may now relax that assumption and consider the alternative notion that action does not have to be observable. If we do, we can entertain the following:

Earlier in the day I had a choice of *thinking* about either part I, II, III or IV of Professor Nozick's paper on Austrian methodology. My choice was to think about part I. No one else observed this. No one else could be in a position to know anything about this choice of mine. (I assume away the possibility of not-yet-invented electronic mind-reading devices, 'super-duper' neurologists, etc.)

If one concedes that this was an *act* of choice, then there is no problem of inconsistency between the Austrian doctrine of alternative costs and its claim that preferences cannot exist apart from actual choices made.

For what happens when you choose between *A*, *B*, *C*, *D* is a two-stage process. First of all, you narrow down your range of choice. You say that of II, III and IV, II is the best; and that of I, III, and IV, I is the best. Therefore, I and II are the best two of the lot. You choose the two best by scanning all, (or many) alternatives.

Secondly, you choose between I and II. As I have said, I chose I. This would make II the second best, or, in Austrian terminology, the *cost* of thinking about I. So you *do* compare II, the alternative cost, with the others, III and IV.⁹⁸

Not only, then, has a preference of I over II actually been made, and shown by human action, but a preference of II over III or IV has *also* been made, and is *also* part and parcel of an actual act of choice. Although, to be sure, this preference, unlike the first, is unobservable to people other than the human actor involved. We must therefore reject Nozick's claim that it is inconsistent to say *both* that (a) the notion of preference makes no sense apart from an actual choice made *and* that (b) the cost of any act is the *best one* of the rejected alternatives. For the best one of the rejected alternatives has been chosen to the same degree that *A*, the best of them *all*, has been picked. Only the choice of *B*, the most favoured of the rejects is not publicly observable, while the choice of *A* is apparent to all observers.

7. Nozick, of course, is not convinced by the above argument. He sees a need to 'make sense of preference' in the absence of choice. And his answer? The subjunctive: 'to say a person prefers *A* to *B* at a time is to say he *would choose A* over *B* if he *were* given a choice between (only) *A* and *B* at that time' (p. 373).

The main difficulty with the interpretation of preferring as a subjunctive is the 'brute fact' that man can *change* his preferences. And since the Austrian emphasis is on the market process, where change is the rule, and not on static equilibrium, favoured by the orthodox economists, where change is more of an exception, the subjunctive mode is completely alien to praxeology. It helps little in our understanding of human action to suppose that a person 'really' favours *B* over *A* (because he has a psychological predilection towards *B*?) when he in fact chooses *A* instead of *B*.

Moreover, Nozick's analogy from the concept of solubility in the physical sciences cannot be accepted. The disanalogy is that while people can and do change their preferences, substances do not change their solubility!⁹⁹ But suppose a world in which substances *did* change their solubility, with no less 'compunction' than now exercised by people in changing their preferences. Could Nozick then deny that 'it makes no sense to say something is soluble unless it already has actually dissolved'? Hardly. For in this kind of world, people could not be sure that a substance *was* soluble unless and until they had actually seen it dissolve. No more than one can *now* be sure that a person prefers *A* to *B* unless he actually *chooses* it.

8. Nozick begins his discussion of transitivity and rationality by citing a passage from Mises's *Human Action* (Nozick, pp. 375–6; Mises, p. 103) which denies that the former (if *A/B*, and *B/C*, then *A/C*) is a condition of the latter. This is because there must necessarily be a lapse of time between the first, second, and third choices which make up the transitive relationship; and if the person changes his scale of values after placing *A* above *B*, and *B* above *C*, there is then no rational reason why he must favour *A* over *C*.

So much is presumably agreed to by our critic. But Nozick does not seem to like this state of affairs. He yearns for a system under which it will be possible to declare intransitive preferences 'irrational'. 'The acts cannot be synchronous', he admits, 'but the subjunctives *can* hold true at the same time. So we can make sense of nontransitive preferences at a time' (p. 376). And with this much we must agree: subjunctives are a way of making sense of the interpretation of transitivity as rationality. The difficulty, however, is not with this usage; it concerns the concept of the subjunctive itself, and the criticisms of it, levelled above. These have not been answered, and indeed, cannot be.

9. We now arrive at the only section of the paper which would better have been left unwritten: intimations that Mises's political philosophy

may be responsible for his praxeological views. Nozick asks:

Why does Mises think it so important to argue that the structure of preferences cannot be irrational? Perhaps because he doesn't want anyone interfering with choices on the grounds that they arise from irrationally structured preferences. (p. 376)

This gratuitous, uncalled-for motive-mongering is especially unfortunate in view of the many attacks which have been launched against Mises, on grounds of violating the canons of value freedom in economics,¹⁰⁰ coupled, paradoxically, with Mises's long-standing championing of the self-same doctrine of *Vertfreiheit*.¹⁰¹ It is, moreover, entirely irrelevant to the truth or falsity of Mises's views on transitivity/rationality. As Mises himself explains, perhaps in anticipation of these very remarks of Nozick's:

All that counts is whether a doctrine is sound or unsound. This is to be established by discursive reasoning. . . . The motives that guided the thinker are immaterial to appreciating his achievement.¹⁰²

10. We turn now to Nozick's explanation of how it is possible to 'conclude he *does* prefer *A* to *B*, despite the fact that he has chosen *B* when *A* was available' (p. 377). One account is that 'the person might have . . . lost sight of *A* [or perhaps] he just gets confused and acts' (p. 377).

The question we must pose is how does Nozick, the outside observer, know that the person really preferred *A/B*, even though he *picked B/A*? How can Nozick tell that he 'got confused' or 'lost sight of *A*'?

And would we *believe* a person who chose *B/A* but yet maintained that he 'really' preferred *A/B*, but just 'got confused' or 'lost sight of *A*'?

As *psychologists* we might perhaps believe him (although our credulity would be strained to the breaking point after very few repetitions of this sort of behaviour. We would soon begin to believe that 'actions speak louder than words'). A trained therapist, intimately familiar with a patient's reactions, might, however, put some stock into the subjunctive mode and reason that since the long-standing pattern has been to choose *A/B*, a very few counterexamples cannot extinguish it.

But as *praxeologists* this ratiocination could only be considered as the subjunctive mode run amok. For the *economist*, as outside observer, has before him only the act of choosing *A/B*. Nothing else. This is the bedrock upon which all analysis must be based. Anything else must be considered sheer speculation. Given that man can and does *change* his preference

scales, it is utterly impossible to base an interpretation of a preference of *B/A* on an actual act of selecting the very opposite. We cannot reason that because a person has always selected *B/A* in the past he, therefore, *would* prefer *B/A* in the future, especially not in those cases where the subject now picks *A/B*.

We must of course agree with Nozick that '[f]rom a person's doing *B*, we cannot know he believed *A* was available to him' (p. 377). We cannot, then, deduce from the fact that a person chose *B* that he preferred *B* to any specific *A*. But we most certainly can know, contrary to Nozick, that if he chose *B*, he preferred this to *some* other alternative, call it *A*. For if there were no alternative, *A*, rejected in *B*'s favour, then the person could not be said to have made a *choice* at all. If *B* was the *only* opportunity strictly available, then the person did not *act*; at most, all we can say is that *B* 'occurred', but not that *B* was chosen.

11. The last point we will concern ourselves with in this section is Nozick's claim that '[r]ationality conditions are conditions which it is possible to violate' (p. 377). In other words, if there is to be rationality, it must be possible to have some irrationality with which to contrast it. This seems plausible, but not when we understand the sense in which the Austrians put forth the claim that 'all action is rational'. This can best be interpreted as a research manifesto, whose aim is to explain the core of rationality in all of human action.¹⁰³ In this view, allowing that an action can partake of the irrational would be to admit, for the Austrians, that it cannot be explained or understood. And this, in the realm of economics, the Austrians are unwilling to do.

IV. Time-preference

1. Nozick begins this section by criticizing Rothbard's view of time-preference, where he denies the latter's contention that this phenomenon can be 'demonstrate[d] . . . on the basis of the scarcity of time' (p. 378).

Nozick is of course correct when he asserts that 'time-preference is not the same thing as economizing time'. Rothbard, however, would not and did not maintain this. Rather, he held that time-preference 'results from', or is deducible from, the economization of time.

But Nozick's *reason* for denying the equivalence between time-preference and time-economizing is incorrect. In his own words:

Suppose there are two acts *A* and *B*, which each take five minutes to do, and yield the

same goal, but one delivers its goal earlier than the other. Suppose *A* delivers seven minutes after it's done, and *B* delivers one year after it's done. However, each taking five minutes to do economizes time equally. Time-preference, therefore, cannot be derived from economizing time. (pp. 378–9)

The difficulty with this is that for the Austrian it matters not one whit how long a productive act takes to *do*: what is *relevant* for human action, and the *only thing relevant* for human action, is the manufacturing *plus* the delivery time, or *total* time until consumption can take place. *A* and *B* in Nozick's example may each take five minutes to *do*, but since *A* takes another seven minutes to *deliver*, while *B* takes a whole *year*, they cannot at all be considered to 'economize time equally', as Nozick would have it. Rather, *A* takes a total of $5+7=12$ minutes, while *B* takes $5 \text{ minutes} + 1 \text{ year} = 1 \text{ year and } 5 \text{ minutes!}$

One would have thought that so much would have been understood from reading the section of *Man, Economy and State* from which Nozick cites Rothbard's views. For it is clearly stated that what is important is 'the period from the beginning of the action to the time when the consumer's good is *available*'.¹⁰⁴

2. Nozick goes on to consider and criticize Mises's views on time-preference, according to which it is a 'categorical requisite of human action', in that if a person 'were not to prefer satisfaction in a nearer period of the future to that in a remoter period, he would never consume and so satisfy wants. . . . He would not consume today, but he would not consume tomorrow either, as the morrow would confront him with the same alternative'.¹⁰⁵

Nozick first characterizes Mises's views as 'different and more striking' than those of Rothbard. Now I am not aesthetician enough to comment on which of the two gives a 'more striking' presentation, but as for the implicit allegation that they are inconsistent, this is mistaken. It is true that Mises explicitly links time-preference and the categorical nature of human action, while Rothbard expresses the concept in terms of time-economization in the passages cited by Nozick. But Rothbard, no less than Mises, sees time-preference as absolutely true, of apodictic certainty, and as a direct implication of the axiom of human action. As proof, we have only to consider Rothbard's reference to 'the universal fact of time preference'¹⁰⁶ and note that his treatment of the concept is explicitly titled a *Fundamental Implication of Human Action*.¹⁰⁷

Disregarding Nozick's next argument on the grounds of indifference (since we have already dealt with this at length), we arrive at his conten-

tion that a person may 'act now' not because of time-preference, but 'because the option of getting the satisfaction is a fleeting one which will not be available later'. In other words, a person might really want an item 'later', but realizes that if he is to have it at all, it will have to be 'now', since it will soon disappear, forever. Nozick concludes: 'Thus, a person can have a reason, other than time-preference, to act now; to prefer satisfaction sooner rather than later is not necessary in order to act now' (p. 379).

This is all true enough, but it is irrelevant to the Austrian argument in behalf of time-preference. For on this view, there is supposed to be a choice between *two* different goods, both of which would be equally serviceable,¹⁰⁸ but which are available at *different* times. Then, according to the praxeological conception, the one which can be delivered earlier will be the one chosen. But Nozick's criticism, in contrast, speaks instead of only one good, which will be available right now, and not thereafter.

Even this choice, however, while not, perhaps, a good illustration of preference, is certainly consistent with that doctrine. For by the fact that a man acts (in whatever choice situation he finds himself) he shows himself as preferring present action to no action at all. Just because, as in Nozick's example, the good will not be available later, is not a sufficient explanation of why it was chosen now. There was still *another* alternative: spending the money for something else which will be available in the future. The reason that *this* was rejected in favour of present consumption, *any* present consumption, can only be understood in terms of time-preference.¹⁰⁹

Nozick goes on to make a forceful case indeed for the view that the law of time-preference need not always be in operation; that periods of time-preference can alternate with periods of non-time-preference. Labelling this 'weak time-preference' he terms this 'considerably weaker' than the general time-preference theory he takes the Austrians to champion (pp. 379–80).

But Nozick himself quotes Mises as saying: 'Time preference is a categorical requisite of *human action*.'¹¹⁰ It is perfectly consistent with this that if there is no human action, there is no, and can be no, time-preference! Of course, it is true that 'when a person acts . . . he has time-preference *then* for the *particular* good he then acts to get'. Of course there will be 'an alternation of periods of time-preference for good *G*, and period of *no* time-preference for good *G*' (p. 379) depending upon whether or not *human action* is taking place. The Austrian may adopt as an obverse of

time-preference theory the view that when or where there is no human action there can be no time-preference. The Austrian will accept, moreover, the premiss that human action need not *always* take place. If the entire world's population were to fall asleep at the same one minute of time, there could be no human action taking place during that interval. Time-preference, then, would not be in operation for that duration either.

But this supposition would not create any untoward problems with regard to 'what the theory of interest would look like' (p. 379). Interest-rate theory would simply not *apply* to such an era of no human action, no time-preference. It is not that interest theory would be bent out of shape or would be incorrect. The interest rate, and the time-preference rate upon which it is based, are concepts inextricably bound up in human action. When human action is assumed out of existence, it should occasion no surprise that these other theoretical edifices disappear along with it.

Nor can we accept Nozick's claim that time-preference remains 'mysterious' or unexplained (p. 380). Rothbard has explained it in terms of the specific axiom of human action that time is a scarce commodity; Mises has accounted for it on the basis of the insight that human action in general is impossible without it. To Nozick's question, 'Action shows time-preference; but why is there time-preference?' we can only answer, 'Because there is human action'.

3. Nozick's remarks in the next few pages are material introductory to his theory of 'double discounting' with which he ends his paper. Before viewing his treatment of that theory, we must first note several misunderstandings and misinterpretations of Austrian economics in this preparatory material.

He begins by noting that 'Austrian writers need not deny that work may itself have intrinsic satisfying quality' (Nozick gives the example of someone who does not desire privacy and who is paid by a psychologist to be observed doing whatever he wants to do [pp. 380–1]).

But although no Austrians to my knowledge have come up with such an inventive example to illustrate the point, they have hardly 'denied' this possibility. Indeed, says Rothbard:

It is possible that included in this 'return' of satisfaction yielded by labor may be satisfaction in the labor itself, in the voluntary expenditure of energy on a productive task. . . . Where labor does provide intrinsic satisfactions, the utility of the product yielded will include the utility provided by the effort itself.¹¹¹

Nozick then goes on to interpret time-preference as 'involv[ing] a prefer-

ence of greater current consumption and less future consumption over uniform consumption (summing to the same as the previous alternative) throughout time' (pp. 381–2). The Austrian view of time-preference, then, according to Nozick, would involve people in choosing a pattern of consumption which declined as time wore on. This, of course, is patently contradicted by experience, for we know that many consumers prefer a uniform expenditure pattern, or one that increases with age ('saving for a "rainy day"' or for retirement in old age).

But this is a completely unacceptable interpretation of time-preference theory. True, if somehow we could assume a zero interest rate, and a uniform-through-time-income-schedule, which we cannot, *then* everyone's desired spending pattern might be a declining one through time. At any positive rate of interest (again, assuming income uniformity), there will be people with high time-preference whose relatively great impatience will induce them into what Nozick regards as the pattern Austrians are committed to: falling through time. But there will also be *low* time-preference people, willing to lend money out at present interest rates, so that they can enjoy increased income, *later*.¹¹² These people will experience *increased* consumption through time.

In this line of thought, Nozick is then moved to make the following utterances, as if the Austrians would or could deny them:

Given two desires which can be satisfied now or later, the greater need not be satisfied first: the opportunity costs of satisfying it first might be larger than those of satisfying it second. (p. 382)

I take this to mean that if a person prefers an equally priced chicken to a hamburger dinner, he will nevertheless prefer the latter, if it could be had for \$5.00, given that the former would cost \$45.00. Let us just say that there is nothing controversial about this view, nor anything in it that could bring embarrassment to the Austrian view of time-preference.

What are we to make of Nozick's opinion that 'time-preference . . . has been *discovered* in animal experiments'? (p. 382, emphasis added). What Nozick means by this phrase is that it has been discovered that the 'effectiveness of a reward declines with its distance forward in time'. Now this might well be true – but it has nothing to do with the Austrian notion of time-preference, which is apodictically certain, and applicable to all purposeful beings.

One must of course determine whether or not an animal is capable of motivated, purposeful behaviour, but this is a matter of *Verstehen*, and not

experimental testing. Once it is determined that the animal is able to *act*, then it logically follows that time-preference will describe its actions. And this is true whether or not an earlier reward will be more effective in changing its behaviour! It might be discovered, for example, that a particular animal is more likely to change its behaviour the further away in time (within certain limits) the reward is given. But this would not necessarily violate the canons of time-preference, for what the animal might be obtaining in the future is the reward *plus* the opportunity to savour its prospective coming; and it can value this *combination*¹¹³ more than the reward itself and still act in accord with the 'dictates' of time-preference.

Nozick is in error, however, in saying that '[t]he height of a curve at each point in time represents how valuable the later reward is to the organism at *that* point in time' (p. 382). By this I interpret Nozick as meaning that, for example, if it is now t_0 and the animal is to receive a reward at t_5 , then the height of the point at t_0 will show how valuable the reward is to the organism at t_5 .

The difficulty with this is that no actor, animal, or even human, can know how it, or he will value something in the future. People can know how they presently value something receivable in the future (the 'present discounted value') but not how valuable a future good will be in the future. They might change their minds about the item, and no longer value it in the same way when the time for its arrival is upon them.

Nozick then utilizes these response curves to illuminate the making and breaking of resolutions, and the concept of self-control. An example of resolution-making (or self-control: resolution-keeping) would presumably be the forgoing of an earlier smaller reward (eating a chocolate cake) in favour of a later, larger reward (losing weight, maintaining health). Resolution-breaking would appear to be making the opposite choice.

But how can we *praxeologically* distinguish these choices? Suppose that the actor either changed his mind, or originally decided that present cake and later possible illness was preferable to present deprivation and later health?¹¹⁴ Now the *psychologist* could say that the person's 'better self' made the non-cake-eating resolution, and later succumbed in the face of temptation, and was, therefore, irrational. But the praxeologist must be silent about the *content* of man's ends.¹¹⁵ He cannot, therefore, distinguish between resolution-making and -breaking, calling the former 'better' than the latter. Nozick's analysis then, while perhaps valid from a *psychological* viewpoint, is irrelevant to Austrian economics.

There is one point, however, upon which Nozick and Mises are in

complete accord: that man's faculties (time-preference tendencies in Nozick's case)¹¹⁶ are the result of an evolutionary process, although Nozick does not seem to be aware of this as an area of agreement. But Mises does refer to 'the genetic problem of how man acquired his characteristically human mental ability' and states:

Man is descended from nonhuman ancestors who lacked this ability. These ancestors were endowed with some potentiality which in the course of ages of evolution converted them into reasonable beings. This transformation was achieved by the influence of a changing cosmic environment operating upon succeeding generations.¹¹⁷

The human mind is not a tabula rasa on which the external events write their own history. It is equipped with a set of tools for grasping reality. Man acquired these tools, i.e., the logical structure of his mind, in the course of his evolution from an amoeba to his present state.¹¹⁸

4. We are now ready to consider Nozick's last and perhaps most controversial point: the claim that human beings are brought by evolution into a state of 'double discounting'.

This 'puzzle' arises because 'the evolutionary process builds time-preference into organisms who do not calculate'. But if, Nozick continues,

organisms who do calculate, and who can in their deliberations take into account various future contingencies . . . also feed into these calculations magnitudes of (future) desires which have been discounted to take such calculative considerations into account already, then isn't there *double-counting*, or rather, *double-discounting*? Time-preference first discounts, and our later calculations explicitly take into account factors and lead, in effect, to explicit discounting. (pp. 383-4)

If I can put this complex claim into my own words, Nozick seems to be saying that if evolution breeds time-preference into lower animals, then what about human beings who also explicitly calculate time-preference: won't they be guilty of double discounting – on one level from nature, and once from purposeful calculation? In other words, man's implicit discounting (derived from evolution) *plus* his explicit calculational discounting adds up to double discounting.

If this is indeed his view, then there is the difficulty that it commits an equivocation with regard to 'time-preference'. This phrase is used both to denote the *general concept* of time-preference, as well as a *specific rate* of time-preference, or discount, without sufficient care being taken to distinguish between the two.

The discounting that is built into us by evolution is, and can only be, a general predisposition towards purposeful human action, out of which

flows the concept of time-preference. The discounting at this level of analysis, then, is not a specific discount rate: it is only a phenomenon of discounting – an ability, as it were, to be rational: to act, to prefer present to future goods, etc. Then of course there is a specific rate of time-preference or discount that each individual reckons in terms of – consciously or not. This is the more usual understanding of the term.

Perhaps a numerical example will make clear the differences between Nozick and the Austrians on this matter. One gathers from Nozick that *each* level of discounting imparts to the individual a specific rate. We may suppose, for instance, that evolution has given a person a seven per cent rate of discount, and that his conscious internal rate of return is six per cent. Thus, Nozick would reason, he is 'really' discounting future income by seven per cent *and* six per cent or by thirteen per cent, the double discount. In our view, by contrast, what evolution can breed into a person is not a specific rate of discount, such as the seven per cent we are supposing Nozick to be assuming for the purposes of this example, but rather an ability to have time-preference at all. Thus, for us, there is no seven per cent in the above case. There is only the six per cent, derived from the calculative 'level'. There is only single discounting, not double discounting.

Nozick's argument follows the pattern of this mistaken 'evolutionary' analysis: Let us hold constant, in our minds, man's ability to see all the colours of the spectrum; and let us concentrate on the indubitable fact that evolution has brought man an ability to see one of them, the colour red. Now, analogous to double discounting, we may charge that man really sees everything through 'rose-coloured glasses'. When man sees the colour yellow, it is really a combination of true yellow, plus the red colour which the evolutionary process has built into him. And when modern-day man beholds something that is really red, like the inside of the ripe watermelon, this is really 'double red', once from the evolutionary factor, and once from his 'calculative' or optical sense.

I submit that this fanciful and colourful example makes no more sense than Nozick's concept of double discounting. The difficulties are the same. For what evolution brings man, if it brings him anything of the sort, is not a vision of everything in one specific, particular colour, but rather a general ability to perceive colours. In just the same manner evolution can bring man the ability to act, and to have time-preference, but not at any particular level, which can then be superimposed on that which man would otherwise choose (or see).

Let me say in conclusion that although the Austrian edifice still stands unbowed after Nozick's valiant assaults upon it, the praxeological school has gained immeasurably from his effort. There is nothing that energizes a philosophy so much as well-conceived, basic, and inventive criticism. In the spirit of John Stuart Mill,¹¹⁹ if a Robert Nozick didn't exist, Austrians would do well to try to create one.

Nor can we avoid the possibility that at least some of Nozick's criticisms will necessitate changes, even basic changes, in the theoretical structure of praxeology. When one crosses swords with a scholar of Nozick's intellect, one must hold one's views with trepidation, ready, always, to be shown one's error. There are two reasons for writing this defence of Austrian methodology despite these dangers: one, although there are undoubtedly errors in it, I am presently unaware of their exact location; and two, there is the hope that Nozick's possible reply will further push out the frontiers of economic knowledge.¹²⁰

NOTES

- 1 Robert Nozick, 'On Austrian Methodology', *Synthese*, Vol. 36 (1977), pp. 353–92.
- 2 *Ibid.*, p. 354.
- 3 See Ludwig von Mises, *The Ultimate Foundation of Economic Science*, Sheed, Andrews & McMeel, Kansas City 1978, pp. 6–7.
- 4 Nozick, *op. cit.*, p. 354. (All future mention of Nozick's work, unless otherwise indicated by the context or specified, will refer to this one article. Emphases are original unless otherwise stated.)
- 5 *Ibid.*, p. 354.
- 6 *Ibid.*, p. 354. Had he stuck to the more mundane 'theory of individual human action', it is doubtful that so astute a commentator would have been led to exclude *human* interaction.
- 7 Says Murray N. Rothbard: 'To say that only individuals act is not to deny that they are influenced in their desires and actions by the acts of other individuals, who might be fellow members of various societies or groups. We do not at all assume, as some critics of economics have charged, that individuals are "atoms" isolated from one another.' *Man, Economy and State*, D. Van Nostrand Co., New York 1962, p. 435, f.a. 6.
- 8 See *The Ultimate Foundation*, *op. cit.*, p. 80 and p. 82.
- 9 Nozick, *op. cit.*, p. 355.
- 10 *Ibid.*, pp. 356–7.
- 11 Sidney Sherwood, 'The Philosophical Basis of Economics', in the *Annals of the American Academy of Political and Social Science* (Oct. 1897), p. 65 (213), emphasis added.
- 12 *Ibid.*, p. 67 (215), emphasis added.
- 13 *Ibid.*, p. 69 (217).
- 14 Nozick, *op. cit.*, p. 357.
- 15 Rothbard, *op. cit.*, p. 2; Ludwig von Mises, *Human Action*, Henry Regnery Co., Chicago 1966, p. 42 and p. 43; and Sherwood, *op. cit.*, p. 68 (216). See also Ludwig von Mises, *Theory and History*, Arlington House, New York 1969, pp. 183–90.
- 16 Nozick, p. 387, Note 11.

- 17 Alternatively, the citizens group (government) could offer to give people these 'green pieces of paper' for the purpose of transacting business.
- 18 For a full treatment of this claim see Mises, *Human Action*, op. cit., pp. 405–8; see also Carl Menger, *Principles of Economics*, The Free Press, Glencoe, Ill. 1950, pp. 257–61, 315–20.
- 19 Nozick, op. cit., p. 358.
- 20 Nozick appears to admit this when he terms institutions 'the stable patterns of others' actions' (p. 360).
- 21 And individuals, although they follow institutional patterns most of the time, can break out when they have a mind to. There is no doubt, certainly with regard to the institution of marriage in the modern day, that people can flaunt it when they decide it is in their best interest to do so.
- 22 Mises, *Human Action*, op. cit., pp. 41–42.
- 23 Ibid., p. 43.
- 24 Ibid., p. 46.
- 25 Nozick, op. cit., p. 360 (emphasis added).
- 26 While discussing one specific theory concerning the shaping of utility functions, operant conditioning, Nozick seems to confuse Austrianism with libertarianism (p. 360). As this conflation is a constant occurrence, we might do well to try to distinguish between them. On one level, the confusion is understandable. Libertarianism is an individualistic philosophy, in that it places supreme emphasis of the rights of each person, and Austrianism, as we know, has MI as a basic plank of its procedures. It is, however, important to see the differences, for the former is an ethical system, and the latter is a philosophy of (social) science: the problems created through mixing up normative and positive economics are too well known to be elaborated upon here. According to libertarianism, a theory of right and wrong, evil consists of violating individual rights to person and property by the initiation of force or fraud; while according to Austrianism or praxeology, a theory of truth and falsity, the best way to discern these elusive qualities is through the operation of MI.
- 27 Mises, *Human Action*, op. cit., p. 47.
- 28 Nozick, op. cit., p. 361.
- 29 This is not, of course, to deny the relevance, indeed importance, of the macro-level, for some problems. For example, if we wish to determine whether or not the floor is strong enough to hold the burden placed upon it, we need do no more than add up the weights of all the people who will stand upon it. Their individual purposes, plans, aims, are for this problem entirely irrelevant. This is not an economic, but an engineering problem. (I owe this example to Israel Kirzner.)
- 30 In their 'Inflation, Recession, and Stagnation', in Edwin G. Dolan (Ed.), *Foundations of Modern Austrian Economics*, Sheed & Ward, Kansas City 1976, p. 191.
- 31 Mises, *Ultimate Foundation*, op. cit., p. 83.
- 32 Mises, *Human Action*, op. cit., p. 43.
- 33 Murray N. Rothbard, 'In Defense of "Extreme Apriorism"', *Southern Economic Journal*, Jan. 1957, pp. 315–16.
- 34 Ibid., p. 317.
- 35 Mises, *Human Action*, op. cit., p. 12.
- 36 Ibid., p. 242.
- 37 Ibid., p. 92.
- 38 Ibid., pp. 11–12.
- 39 Ibid., p. 105.
- 40 Rothbard, *Man, Economy and State*, op. cit., p. 5.
- 41 Israel Kirzner, *Competition and Entrepreneurship*, University of Chicago Press, Chicago 1973, see esp. pp. 84–87.
- 42 Mises, *Human Action*, p. 100, emphasis added.
- 43 Mises, *Ultimate Foundation*, op. cit., pp. 2–3.
- 44 Ibid., p. 48.
- 45 Claudio Gutierrez, 'The Extraordinary Claim of Praxeology', *Theory and Decision*, Vol. 1 (1971), p. 329. See also Walter Block, 'A Comment on "The Extraordinary Claim of Praxeology" by Professor Gutierrez', *Theory and Decision*, Vol. 3 (1973), p. 382, wherein is found the following statement: 'Prof. Gutierrez himself, in his "play, artistic or religious contemplation" also conforms to this principle, I dare say. He does alter his own future compared to what it would have been in the absence of such contemplation when he engages in such actions.' (Emphasis added.)
- 46 In this he was anticipated by Professor Claudio Gutierrez, who held that people can 'sometimes act not for altering the future but merely for enjoying the present, i.e., the action itself; e.g., in play and artistic or religious contemplation'. See 'The Extraordinary Claim of Praxeology', op. cit., p. 327.
- 47 Rothbard, *Man, Economy and State*, op. cit., p. 3.
- 48 Block, op. cit., p. 381.
- 49 Mises, *Human Action*, op. cit., p. 20.
- 50 Ibid., p. 20.
- 51 Israel M. Kirzner, *The Economic Point of View*, D. Van Nostrand Co., New York 1960, pp. 171–2.
- 52 See Rothbard, *Man, Economy and State*, op. cit., pp. 56–58, and Mises, *Human Action*, op. cit., pp. 505–8.
- 53 His motive for this behaviour might well be to confound those economists who have established the maxim 'ignore sunken costs' as a means of maximizing utility.
- 54 Mises, *Human Action*, op. cit., p. 95.
- 55 Says Murray N. Rothbard: 'When an entrepreneur deliberately accepts lower money profits in order to give a good job to a ne'er-do-well nephew, the praxeologist is not confounded. The entrepreneur simply has chosen to take a certain cut in monetary profit in order to satisfy his consumption-satisfaction of seeing his nephew well provided.' In Defense of "Extreme Apriorism", op. cit., p. 316. See also Walter Block, 'Coase and Demsetz on Private Property Rights', *Journal of Libertarian Studies*, Vol. 1, No. 2, pp. 111–15, which is devoted to one implication of this phenomenon.
- 56 Rothbard says in a related context: '[I]n the money economy, other things being equal, men will attempt to attain the highest possible money income'. *Man, Economy and State*, op. cit., p. 183.
- 57 Robert Nozick, *Anarchy, State and Utopia*, Basic Books, New York 1974, p. 42.
- 58 Ibid., p. 43.
- 59 See above, point 3, Notes 36 and 37.
- 60 Mises, *Human Action*, op. cit., p. 92.
- 61 See Note 7. We may note, too, that profits are positive reinforcements to human action while losses are negative conditioning.
- 62 John Kenneth Galbraith, *The Affluent Society*, Houghton-Mifflin Co., Boston 1958. For criticism of these doctrines, see Mises, *Human Action*, op. cit., pp. 320–3; Rothbard, *Man, Economy and State*, op. cit., pp. 839–50; Walter Block, *Defending the Undefendable*, Fleet Press, New York 1976, pp. 68–79; Kirzner, *Competition and Entrepreneurship*, op. cit., pp. 135–86; F. A. Hayek, 'The Non-Sequitur of the "Dependence Effect"', *Southern Economic Journal*, Vol. 27 (April 1961), pp. 346–8.
- 63 Rothbard, *Man, Economy and State*, op. cit., p. 435.
- 64 Ibid., pp. 1–2, emphasis added.
- 65 Mises, *Human Action*, op. cit., p. 34. On page 28 he refers to 'the fact that animals and even plants react in a quasi-purposeful way'.
- 66 Mises, *Human Action*, op. cit., p. 36.

- 67 Ibid., p. 27.
- 68 Ibid., p. 28.
- 69 Rothbard, *Man, Economy and State*, op. cit., p. 435.
- 70 See Note 38 above.
- 71 See Rothbard, *Man, Economy and State*, op. cit., p. 1.
- 72 Mises, *Human Action*, op. cit., p. 31. See also his *Ultimate Foundation*, op. cit., pp. 74, 66, 67.
- 73 Mises, *Theory and History*, op. cit., pp. 306, 7. See also *ibid.*, p. 5.
- 74 The arguments indicating the difficulties and impossibilities of prediction are very similar to those which show that economic theories cannot be tested, but rather can only be used to illustrate historical occurrences.
- 75 Rothbard, 'In Defense', op. cit., p. 316, material in brackets inserted by the present author.
- 76 Mises, *Human Action*, op. cit., p. 65.
- 77 Ernest Nagel, *The Structure of Science*, Routledge & Kegan Paul, London 1961, pp. 480–5.
- 78 Ibid. On page 483 he criticizes the view that 'a social scientist cannot account for men's actions unless he has experienced in his own person the psychic states he imputes to them or unless he can successfully recreate such states in imagination'. On page 484 he states: 'In sum, the fact that the social scientist, unlike the student of inanimate nature, is able to project himself by sympathetic imagination into the phenomena he is attempting to understand, is pertinent to questions concerning the origins of his explanatory hypotheses but not to questions concerning their validity.' (Emphasis added by the present author in the first case in the last sentence, not in the second.) Nozick, too, speaks of 'empathetically understand[ing] behavior' (p. 367). (Emphasis added.)
- 79 Says Mises: 'Empathy and understanding are two radically different attitudes', *Human Action*, op. cit., p. 50.
- 80 See Mises, *Theory and History*, op. cit., pp. 310–11. Also his *Ultimate Foundation*, op. cit., p. 74.
- 81 Ibid., p. 57.
- 82 Ibid., pp. 41, 43, emphasis added. See also the remainder of p. 41.
- 83 Ibid., p. 50.
- 84 Mises, *Human Action*, p. 242, emphasis added.
- 85 See point 13 above.
- 86 Austrians would reject the first in that weak preference makes use of 'indifference' and the second since they believe that choice, or human action, is necessary and sufficient to establish strong preference.
- 87 Indeed this can be used as a technique to help uncertain people make up their minds. The trick is, after first flipping the coin, to closely monitor one's feelings with regard to the result. If happy, one can choose to be guided by the random device. If not, then one can do the opposite of what the coin 'dictates'.
- 88 Reliance on the coin flip as an answer, as we have seen, is no real solution. It just pushes back the question, which now becomes: Why did he go along with the random choice if he didn't prefer to?
- 89 More exactly, certain specific units of butter_a would be shown as preferable to the one unit composed of the commodity, butter_b. See Rothbard, *Man, Economy and State*, op. cit., pp. 17–18.
- 90 See *Toward a Reconstruction of Utility and Welfare Economics*, Center for Libertarian Studies, New York 1978, pp. 13–20; and Rothbard, *Man, Economy and State*, op. cit., pp. 265–8.
- 91 For the Austrian, what is significant in terms of homogeneity 'is not the physical property of a good, but the evaluation of the good by the actor'. Ibid., pp. 19, 60, 61. It should be no paradox that if the evaluation changes, then so can we move from homogeneity to heterogeneity.
- 92 See Rothbard, *Man, Economy and State*, op. cit., p. 21; also *Toward a Reconstruction*, op. cit., pp. 9–13.
- 93 Nozick gives an exemplary Austrian criticism of this on page 369, under the heading 'expanding universe', in terms of maldefinition of the unit of the commodity.
- 94 Mises, *Human Action*, p. 96, emphasis added.
- 95 The relationship between talk and belief is even more distant. In addition to the above possibilities, it is always possible that the talker is lying or fooling us.
- 96 See Brand Blanshard, *Reason and Analysis*, Open Court Publishing Co., La Salle, Ill. 1973, pp. 335–6.
- 97 G. F. Thirby, 'The Subjective Theory of Value and Accounting "Cost"', *Economics*, Feb. 1946, p. 33, emphasis added. See also Mises, *Human Action*, op. cit., p. 97; James M. Buchanan, *Cost and Choice*, Markham, Chicago 1969, pp. 21–34; Friedrich A. Hayek (Ed.), *Collectivist Economic Planning*, Augustus M. Kelley, Clifton 1975, pp. 226–7 ('The Present State of the Debate'). See also Rothbard, *Man, Economy and State*, op. cit., pp. 542–4, where specific implicit costs are given, but these are used only as examples.
- 98 These quoted paragraphs are loosely based on remarks forcefully and eloquently made by Professor Israel M. Kirzner on the occasion of the presentation of an earlier version of Professor Nozick's 'On Austrian Methodology' to the Austrian Economic Seminar at New York University.
- 99 For a general Austrian criticism of analogies between the sciences of human action and the physical sciences, see Mises, *Ultimate Foundation*, op. cit., pp. 40, 56, 57, and 62; *Human Action*, op. cit., p. 352; *Theory and History*, op. cit., pp. 9–11, and Rothbard, *Man, Economy and State*, op. cit., pp. 739, 754, 755.
- 100 Cf. *Annals of the American Academy of Politics and Social Science*, March 1950; *American Economic Review*, June 1950; and *Political Science Quarterly*, Dec. 1950.
- 101 See Mises, *Human Action*, op. cit., pp. 29, 95; *Theory and History*, op. cit., pp. 26, 271. Another paradox: Mises and Nozick are associated with the same political philosophy—libertarianism.
- 102 Ibid., p. 27. One must resist the great temptation to speculate as to Nozick's motives (1) for criticizing the Austrian school in general and (2) for ascribing political motivations to Mises in this particular instance.
- 103 See Note 51.
- 104 Rothbard, *Man, Economy and State*, op. cit., p. 11, emphasis added.
- 105 Mises, *Human Action*, op. cit., p. 484. Cited by Nozick, op. cit., p. 379.
- 106 Rothbard, *Man, Economy and State*, op. cit., p. 13. Cited in Nozick, op. cit., p. 378.
- 107 See table of contents, Rothbard, *Man, Economy and State*, op. cit. Mises, too, speaks in terms of time economization. See his *Human Action*, op. cit., p. 48.
- 108 See Rothbard, *Man, Economy and State*, op. cit., pp. 60–61. See also Mises, *Human Action*, op. cit., p. 489; Walter Block, 'The Negative Interest Rate: Toward a Taxonomic Critique', *Journal of Libertarian Studies*, Vol. 2 (1978), No. 2, p. 121.
- 109 See Mises, *Human Action*, op. cit., p. 486.
- 110 See Note 105, emphasis added.
- 111 Rothbard, *Man, Economy and State*, op. cit., p. 38.
- 112 See Roger Garrison, 'In Defense of the Misesian Theory of Interest', *Journal of Libertarian Studies*, Vol. 3 (1979), No. 2.
- 113 See Block, 'The Negative Interest Rate', op. cit., p. 123.
- 114 He might have been guided by the maxim, 'Every calorie says "Yea!" to life'.
- 115 See Rothbard, *Man, Economy and State*, op. cit., p. 63.
- 116 I fear my previous criticism of Nozick on this point is in error. See Block, 'The Negative

- 'Interest Rate', op. cit., p. 124, fn. 3.
- 117 Mises, *Human Action*, op. cit., p. 33.
- 118 Ibid., p. 35.
- 119 Cf. *On Liberty*. And in the spirit of Oscar Lange, when the Austrian school establishes a central meeting hall, it would be only proper and fitting that a great statue in Nozick's likeness be erected, and placed in the central corridor.
- 120 The author wishes to express a debt of gratitude to Dominick Armentano, David Gordon, Israel Kirzner, Murray N. Rothbard, and Brian Summers, not all of whose comments he has had the grace or wisdom to follow.