Cold turkey: kicking the habit of justification

Critical Rationalism: A Restatement and Defence
by David W. Miller, *Open-Court, Chicago, pp 275, $44·95, pbk $19·95*

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IT IS 60 years since the publication of the British philosopher Karl Popper's innovative gem, *The Logic of Scientific Discovery*, in which he elaborated a new approach to the methodology of science. If you want to promote the growth of scientific knowledge, Popper argued, you should adopt the method of extravagant guess followed by unrestrained criticism in which the guesses found to be false are cast from the body of science. Critical rationalism is the generalisation of this method of conjecture and refutation to all types of problems.

Despite Popper's influence on many scientists and businessmen, academic philosophy has largely ignored his breakthrough. The discipline is still, in some respects, engaged in a futile exercise—though there are signs that the tide is turning.

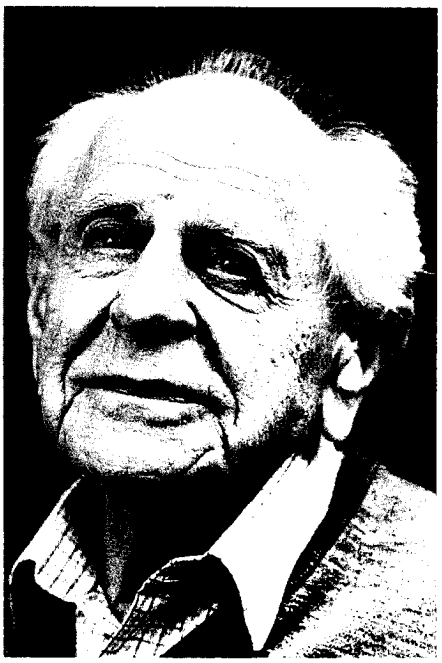
The dominant mode of appraisal in philosophy is to accept all and only those positions that can be justified and reject all others. To anyone new to the debate, justificationism must seem perfectly acceptable, but this is only because we are weaned on justificationism in the West so that it is part of the context in which we frame our ideas and arguments.

David Miller, a lecturer in philosophy at the University of Warwick, unleashes the most sustained and elegantly provocative defence of critical rationalism available, and one that will become the focus for the continuing debate. His book shakes us from our slumbering complacency and forces us to look down at our presuppositions as alien objects, better to understand them and see their defects.

What could be more rational than basing your acceptance of theories and action on good reasons? From his refreshingly different starting position—that good reasons are unobtainable, unnecessary and useless—Miller argues that rationality is neither a collection of good reasons nor the capacity to issue good reasons. Rationality, he says, has the fallible but feasible and useful function of separately classifying true and false statements.

Miller shows that the belief in the existence of sufficient reasons for statements (or their adoption) is a confusion of a derivation and a proof, and that the justificationist's demand for a sufficient reason (proof) either initiates an infinite regress or begs the question.

Suppose I wish to prove that it will rain. If I make the derivation "If it is cloudy, it will rain; it is cloudy; therefore, it will rain", I have not proved (that is, established) that it will rain, since the truth of the conclusion depends on the assumptions. A proof, however, depends on no assumptions.



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Karl Popper: argued for extravagant guesses followed by unrestrained criticism

The justificationist is obliged then to derive the assumptions that it is cloudy etc from other assumptions, and then the assumptions of this derivation from other assumptions and so on, for ever. This is infinite regress. Begging the question comes in because the conclusion (that it will rain) is assumed all along, and might just as well have been simply asserted at the beginning.

I am pleased to say that Miller clears away any smudging of the logical asymmetry between falsification and verification. Popper would say that whereas one observation of a red apple can refute the theory that all apples are green, no number of green apples can prove the theory. Critical rationalism depends on the possibility of our being able to refute conjectures, without any whiff of justification emanating from the procedure. But is not refutation just proof inverted?

Newton's theory has implications about the movements of planets that turned out to be false. Must critical rationalism say that the falsifying observation reports were good reason for rejecting Newton's theory? No—critical rationalism says that the false implications were enough to classify Newton's theory as false. Not only is the logical asymmetry between verification and falsification intact, but also whereas a chain of justifications is an endless repetition of begging the same question, a chain of critical debate can lead to interesting new ideas and problems.

Consider the following imaginary critical debate. You propose that coronary heart disease is caused by increased consumption of foods high in cholesterol. I criticise this by pointing to an observed low correlation between intake of cholesterol and coronary heart disease but a high correlation between consumption of sucrose and heart disease.

You say this cannot be true because of something we both agree on that heart disease is correlated with high levels of blood cholesterol. I rebut this rejoinder by pointing out that cholesterol is broken down by the stomach, while sucrose is broken down to glucose and fructose, and the fructose makes acetate which in turn helps to make cholesterol. Here we have reached an issue—sucrose metabolism—different from our starting point in a way that neither begs the question nor initiates an infinite regress.

Those who do not read Miller's book will find it hard to keep up with the debate; those who do will find many stimulating pathways opened up for discussion. □

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