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WHY BOTH POPPER AND WATKINS FAIL TO SOLVE THE PROBLEM OF INDUCTION

Accepted science not only does, but should, inform our technological practice. If someone wants to build a bridge that will stand up tomorrow or a plane that will fly tomorrow she should assume in particular that currently accepted low-level generalisations will continue to hold tomorrow. Someone who claimed (without evidence) that falling bodies will soon start to fall with an acceleration which increases as the cube of the time of fall would be regarded as downright irrational. Someone who encouraged passengers to fly on an aeroplane built on that supposition about future falling bodies would be regarded as criminally irresponsible. But we know, following Hume, that, since all the observational evidence we have for the generalisations accepted by science is of necessity evidence about the past, and since deductive logic is not content-increasing, we certainly cannot deductively infer that accepted generalisations will continue to hold in the future from any amount of evidence we may have. But what then is the basis for these very firm judgments about rationality and responsibility? This is, of course, the notorious 'pragmatic problem of induction'. John Watkins has recently joined the long list of philosophers who have attempted to solve the problem.

In this paper I shall argue that his crisp and challenging 'solution' entirely fails. However, he himself calls his attempted solution 'neo-Popperian' and sets it against the background of what he sees as Popper's own failure to solve the problem. I begin therefore by explaining exactly why I agree with John Watkins that Popper's solution fails. I feel rather apologetic about this: since I have nothing of real substance to add to the points already made against Popper's alleged solution in the 1930s by Reichenbach and Feigl and later by Ayer, Lakatos, Salmon, Grünbaum, Newton-Smith, and many others.

However, there are some philosophers – notably David Miller – who continue to believe that these criticisms miss their mark and that Popper's solution remains viable.¹ Since the point which seems so obvious to me is clearly not universally regarded as obvious, there may be some merit in trying once more to set out the argument as perspicuously as possible. Moreover, although Watkins accepts that Popper failed to solve the problem, it is not always clear that he accepts the full extent of that failure, since his

own treatment seems to be to inherit some of the faults of Popper's. My treatment of Popper's 'solution' and Miller's defence of it in Sections 1 and 2 of my paper set the scene, then, for my arguments against Watkins's 'solution' in Section 3.²

1. POPPER'S FAILURE TO SOLVE THE PROBLEM OF INDUCTION

Chapter 1 of Popper's *Objective Knowledge* begins with the following striking claim:

I think that I have solved a major philosophical problem: the problem of induction.³

And David Miller agrees – Popper's development of falsificationism means, Miller says, that "the problem of induction is at last well and truly solved".⁴ However, as Popper complains, and as Miller documents, almost no other philosopher of science agrees that he has done any such thing. I'm afraid that on this issue the rest of the philosophical world is right, and in this section I try to explain why.

First of all, what *is* the problem of induction? Well, most philosophical problems tend to proliferate into whole sets of subtly different problems once you start to investigate them closely, and 'the' problem of induction is no exception. But the problem on which I shall concentrate (sometimes called the 'pragmatic problem of induction') can be posed by adapting slightly an example of Lakatos's.

Suppose you are admiring the view from the top of the Eiffel Tower and fall into conversation with a fellow view-admirer. You have both decided to return to ground level to continue your conversation over a cognac, when your new companion suddenly tells you that, rather than take the lift, he intends to leap over the balustrade and float gently to the ground. This fellow is, let's suppose, entirely sincere, not consciously or subconsciously suicidal, not into hallucinogenic drugs and has no hidden parachute under his T-shirt, no hidden super-powered motor in his pocket – he just genuinely believes that he will naturally float gently to the ground below. He turns out to be no intellectual slouch. He has taken A-level physics and knows all about Galileo's law (or, as he prefers to call it, 'alleged law') of free fall and he accepts that all the evidence so far in accords with this law – or at any rate with suitably weakened versions of it. For he also knows history of science and accepts that Galileo's law, as originally formulated, is strictly false. This is partly because of frictional effects of the air, and partly because, even in a