



**Review of *Probability and Hume's Inductive Skepticism***

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PROBABILITY AND HUME'S INDUCTIVE SCEPTICISM  
BY D.C. Stove  
Oxford at the Clarendon Press, 1973, pp 132.

As a piece of philosophical literature, the book is a pleasure to read. Meticulous conceptual and logical clarity is matched by a clean smoothness of writing style. The structure of the whole work is clearly and carefully presented.

Stove makes three contributions to the discussion of Hume's inductive scepticism: (i) to the clarification of Hume's argument and conclusion(s), (ii) to the assessment of the force of the argument, (iii) to the achievement of historical perspective on Hume's present influence. I shall discuss these in order.

As for the book as a whole, Stove offers us a complete structural diagram of Hume's argument for inductive scepticism. This presents in beautifully clear form the structure of an argument whose extended forms span three separate works, each offering surface-differing partial versions, and scores of pages of text. Or rather, as Stove says, what he presents is the best composite of the three versions. This in itself constitutes an important piece of textual detective work, but Stove complements this with a detailed discussion of the most appropriate version of Hume's terminology. All of this is careful, thorough exposition and constitutes an important contribution to understanding Hume, a contribution which could stand apart from the remainder.

Stove pushes his final refined english version of Hume's argument a step further and rewrites it in terms of statements of logical probability. Thus the conclusion Stove attributes to Hume:

- (1) All predictive-inductive inferences are unreasonable

becomes:

- (i) If the inference from  $e$  to  $h$  is predictive-inductive then  $P(h,e.t) = P(h,t)$

where  $P(A,B)$  is read as "the logical probability of  $A$  given  $B$ " which is to be understood, according to Stove's discussion, as "the degree of conclusiveness of the argument from  $A$  to  $B$ ",  $t$  represents the class of logical tautologies and (i) is to be so read as to represent the class of all judgements of this form. Similarly,

- (2) All invalid arguments are unreasonable

becomes

- (ii) If  $e$  does not entail  $h$  then  $P(h,e.t) = P(h,t)$

and

- (3) All predictive-inductive inferences are invalid

becomes

- (iii) If the inference from  $h$  to  $e_1$  is predictive-inductive then  $P(h,e_1.t) < 1$ ; and if  $e_2$  is observational,  $P(h,e_1.e_2.t) < 1$ .

Whether in asserting 1, 2 and 3 one is thereby committed to asserting i,ii and iii is the most difficult claim Stove has to argue. Difficult because the notion of probability Stove wants to use is hardly non-controversial and because the theory of rational belief is scarcely so well developed as to make Stove's rendering of "unreasonable" obvious. What Stove offers is an initial chapter surveying the work develop-

ing the approach to logical probability which he favours - itself remarkably informative reading - and a plausibility argument connecting "unreasonable" to "degrees of rational belief" to "logical probability". If anyone wanted to escape Stove's later conclusions it would be to enter at this point (and this is the only reasonable entry point) to drive a wedge between 1 and i and between 2 and ii, and possibly between 3 and iii as well depending on the grounds offered.

For after that, Stove's demolition of Hume's sceptical conclusion (1 above) is clean and neat. The argument runs:

Let  $F$  be an observational predicate, then the argument from  $F_a$  to  $F_b.F_a$  is inductive. Now:

$$P(F_a.(F_b.F_a),t) = P(F_a,t) \times P(F_b.F_a,F_a,t) \text{ (conjunction principle)}$$

Then:

$$p(F_b.F_a,t) = P(F_a,t) \times P(F_b.F_a,F_a,t) \text{ (equivalence principle)}$$

Assume:

$$P(F_b.F_a,t) \neq 0$$

$$P(F_a,t) \neq 1,0$$

Then:

$$P(F_b.F_a,F_a,t) > P(F_b.F_a,t)$$

But this last line contradicts i where h is taken as  $F_b.F_a$  and e as  $F_a$ .

What makes Stove's argument so simple and strong, yet relevant, is the strength of the form in which he casts Hume's conclusion 1, i.e. as i. All Stove has to rely on is the coherence among statements of logical probability -the

coherence transmitted by the principles of logical probability. The fact is, as Stove points out, once you accept the principles of logical probability then any statement of logical probability will commit you to an indefinitely large class of other such statements; moreover these are so connected, as Stove's argument shows, that if one makes a sceptical judgement at one point one may be bound to accept credulous judgements at others. This is the trap in which he catches Hume (and, to the extent that other sceptics must embrace Stove's formulation of Hume, those sceptics also).

Stove accepts Hume's fallibilist conclusion 3, and so iii and accepts Hume's argument to 3, as he reconstructs it, as both valid and from true premises. He avoids accepting the sceptical conclusion by arguing (successfully, I think) that a necessary, though suppressed, premise is the 'deductivist' premise 2, cf. ii, which Stove also rejects and on the same grounds as he rejects i.

But this leaves the possibility of an inductivist program open again for fallibilism, as opposed to scepticism, and is compatible with any reasonable inductivist position. (Contrary, then, to popular conception, what is acceptable in Hume's arguments is compatible with inductivism.) And Stove, one suspects, has his own inductivist program in mind, which involves using the logical theory of probability centrally (and the inverse Bayse formula in particular).

This book is quite limited in scope, it establishes only the possibility of an inductivist program. One can only hope that Stove will make public more of the framework of an

attractive inductivist logic. Whatever the formal promise of programs like the above, there are reasons to believe that it is too narrowly conceived to act as an adequate framework for a theory of rational acceptance in science. For this purpose a much wider, decision-theoretic context seems indicated in which a wide range of human utilities are operative and acceptance may be in view of a diverse range of ends. Within this larger context, systems of inductive logic, perhaps in the form of statistical inference, may play specialized roles under limited conditions.

The book concludes with a discussion of the transformation in the philosophic climate from the time of Hume, when his scepticism was ignored or rejected in the British Isles, until to-day when he is regarded as one of the great philosophers by both Europe and North America and his fallibilism reigns supreme and even his scepticism is widely accepted. This account is rich in detail, acute in both psychological as well as logical analysis. Every student of the history of philosophy would do well to be familiar with it.

Pages for dollars, the book is expensive (will there be a paperback version?); a modestly written book with a moderately modest aim, but a more consistently clear, focussed treatment of a philosophic problem I have seldom come across.

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