

IRRATIONAL INFERENCE AND RATIONAL BELIEF HUME'S JUSTIFICATION OF INDUCTION

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New arguments are presented for rejecting the idea that Hume was a sceptic about causal reasoning. I argue that Hume intended to show that causal inferences are rational, and that his attempt to do so was successful. In Part I an account of what it is to be a rational inference is proposed. In Part II it is argued that Hume's arguments that we are not determined by reason when we make causal inferences amount to an attack on a certain conception of how reasons cause beliefs for which they are supposed to be reasons, rather than an attack on the view that causal inferences involve reasons. In Part III I show how Hume proposes to justify causal reasoning. In Part IV I discuss the limitations of Hume's justification, and why he sees his view as sceptical. In Part V, I discuss how Hume deals with the sceptical challenge to his justification, and argue that, although Hume does not meet the sceptic's challenge, that does not prevent his arguments from being a justification of causal reasoning.

Hume's arguments which purport to show that we are not determined by reason "when we pass from the impression of one [object] to the idea or belief of another" (T 97) are sometimes taken to show, or to purport to show, something much more exciting and paradoxical – namely, that inductive inferences are not reasonable, or are irrational. D.C. Stove, for

example, reads them this way (Stove (1973), pp.33-34), and he takes inductive scepticism to be equivalent to this claim. This view of what Hume's arguments are supposed to show has been challenged by a number of scholars, who argue that Hume establishes a much more modest claim and a much more limited scepticism, and that it was never Hume's intention, in fact it was contrary to his intentions, to undermine inductive (or causal) reasoning or to raise serious doubts about its reasonableness.¹

A number of reasons for rejecting the claim that Hume embraced inductive scepticism are advanced in the current literature. My concern in this paper is not to rehearse and evaluate these reasons.² Instead, I offer what I take to be a different reason for rejecting the claim that Hume was a sceptic about induction or, more precisely, about causal reasoning – namely, that Hume actually provided a justification of causal inferences. On my reading, Hume was concerned to show that these inferences are rational³, and he succeeded in showing this.

In order to make such a reading plausible, I develop, in Part I, an account of what has to be shown in order to show that an inference is rational. I propose that an inference is rational if and only if it is an act of the mind by which rational beliefs are produced, where a rational belief is (1) a belief for

¹ See, for example, Arnold (1983), Baier (1991), Beauchamp and Rosenberg (1981), Brogton (1983) and Dauer (1980).

² For an excellent and concise discussion of this debate, see Garrett (1997), pp. 76-95.

³ In this paper I use the terms "rational inference" and "rational belief" instead of "reasonable inference" and "reasonable belief." What I mean by a rational inference and a rational belief is spelled out below and in Section I. Throughout the paper, I use the terms only in this limited sense.

which the believer has reasons, and (2) the reasons for the belief cause the believer to have that belief (in the appropriate way). The concept of a rational inference is complex: it involves the concept of having reasons and the concept of causation.

In Part II of the paper I argue that Hume's arguments for the claim that we are not determined by reason when we make causal inferences should not be taken to be an attack on the claim that such inferences involve reasons but, rather, as an attack on a certain view of how these reasons could cause the beliefs for which they are supposed to be reasons. Hume's arguments show only that one hypothesis about the causal principle involved in causal reasoning is incorrect. They do not show that causal reasoning is not rational and, hence, not reasoning at all.

In Part III of the paper, I develop an interpretation of Hume's positive account of causal reasoning in which this account is shown to be a justification of causal reasoning. In Part IV, I discuss the limitations of Hume's justification and his reasons for calling himself a sceptic. Part V of the paper discusses Hume's response to the sceptic who is not satisfied with his justification of causal reasoning. In this section I argue that although Hume cannot provide the kind of justification that the sceptic demands, he can and does provide a vindication of causal reasoning.

I. RATIONAL INFERENCES AND JUSTIFIED BELIEFS

The dispute between those who claim that Hume was a sceptic about induction and those who deny this seems to come down to a dispute about the nature of a rational inference. If the only rational inferences are those that the mind is determined by reason to make, then since Hume concludes

that the mind is not determined by reason to make causal inferences, he must conclude that these inferences are not rational. However, if there are rational inferences that the mind is not determined by reason to make, then Hume's conclusion does not entail that causal inferences are not rational. If we are to assign a fixed content to the idea of a rational inference, we should keep in mind the fact that the notion of an inference is a psychological, rather than a logical, notion. An inference is a transition of the mind from one set of mental states (or one set of beliefs) to another mental state (or belief). What makes an inference rational must be some fact about the transition itself or some fact about the relation of the content of the initial mental states to the content of the final mental state.

There seem to be only two ways in which a mental transition could be thought to be rational: a transition is rational if either (1) it is such that the mind is determined by reason, or, in Humean terms, by the perception of relations among ideas, to make that transition (where the ideas are either simple ideas, such as the idea of a triangle, or complex ideas, such as the idea that snow is white or the idea that snow is white and grass is green), or (2) it is an act of the mind whereby rational beliefs are produced, where a rational belief is one for which the believer has reasons, which reasons also cause the belief.⁴

When philosophers worry about the problem of induction, their fears are almost never directed at the rationality of our *inferences* except insofar as it has some consequences for the rationality of our *beliefs*. The problem of induction is a serious threat only if the claim that inductive inferences are irrational entails that *beliefs* based on such inferences are irrational

⁴ The causal mechanism or principle must also be the right kind. Specifying the kind is notoriously difficult, and I will not try to do so here.

or groundless. Inductive scepticism is an exciting and paradoxical thesis only because it is supposed to entail such exciting and paradoxical claims as that we can never know anything about the world except what is present to the memory and the senses and that our beliefs about the existence of things that we do not immediately perceive are unjustified.

The interesting claim, then, is not the claim that our inferences are not rational in the sense that, in making them, the mind is not determined by reason (or by the perception of a relation among ideas) if that claim is compatible with the rationality of the beliefs that are the products of such inferences. The interesting claim is the claim that our inferences are not rational in the second sense, the sense in which an inference is rational if it gives rise to rational beliefs. If Hume shows that our inferences are rational in this second sense, then he has solved the only problem of induction with respect to causal relations that is of any philosophical interest, even if he denies that we are determined by reason to make the transition.

Causal inferences can be shown to be rational (and, thus, to some extent, justified) if it can be shown that the beliefs that are the results of making such inferences are rational. To show that the beliefs are rational one has to show that the believers have reasons for those beliefs and that those reasons are what cause them to have those beliefs.

If the concept of a rational inference is taken to include both the concept of reasons and the concept of a belief's being caused, then there can be no question about the relevance of Hume's claims about the causes of our beliefs to his assessment of their rationality. This, I believe, is a point in favor of using this concept of a rational inference when interpreting Hume.

II. WE ARE NOT DETERMINED BY REASON

I will take it for granted in what follows that the problem Hume raises when he asks whether reason determines us to make causal inferences is a problem concerning the rationality of the beliefs we come to have as a result of making such inferences and that solving this problem requires explaining how the beliefs in question were caused as well as discovering the reasons we have for them.⁵ In what follows, I argue that the real difficulty Hume finds in showing that beliefs based on causal reasoning are rational is not that of discovering our reasons: this is a difficulty, but it is one that is easily solved. The problem that is *not* so easily solved is that of understanding how the things that serve as reasons could cause the beliefs for which they are reasons. This is at least as serious a problem as the other; for if our reasons could not cause our beliefs, then our beliefs could not be rational.

Hume's arguments concerning the principle that determines the mind to make causal inferences can be seen primarily as thought experiments that are used to test factual claims about human psychology or the mechanisms of belief fixation. Hume's initial attempts to understand the nature of causal inferences make use of an assumption that seems natural and obvious – namely, that the only mental faculties involved in rational belief fixation are the senses, memory, and reason. Hume finds himself forced to abandon this assumption when he discovers that if these were the only principles of belief fixa-

⁵ It could be argued that Hume was concerned only with the causes of our beliefs and not with their justification or that his primary concern in the passages I consider is with psychology rather than epistemology. I address this objection in Section III.

tion, the beliefs we arrive at by reasoning from cause and effect would not be rational.

Hume starts with a minimal assumption that does not involve belief at all but, rather, sees causal reasoning simply as a movement of the mind from one Humean perception (an idea or an impression) to another. He observes that, in the primary cases of causal reasoning,⁶ the mind moves from an impression of some object to an idea of another object that is supposed to be causally related to that first (T 84). The first and simplest hypothesis he considers to explain this movement of the mind is that the impression and reason are the causes of the idea. On the assumption that there are only two mental perceptions involved in this process – the impression and the idea, and given the hypothesis that the mind is determined by reason alone to move from the one perception to the other, this hypothesis amounts to the claim that it would be impossible for a person possessed of the faculty of reason to have the first perception without also having the second, or as Hume puts it, “[s]uch an inference wou’d amount to knowledge, and wou’d imply the absolute contradiction and impossibility of conceiving any thing different” (T 87).

Hume rejects this hypothesis simply by noting that since distinct ideas are separable, and the first idea is distinct from the second, it is possible for a rational person (that is, a person capable of perceiving relations of ideas) to form an idea of the

⁶ Hume seems to take it for granted that, although there may be different kinds of reasoning based on the relation of cause and effect, the most basic form of causal reasoning is that which involves a present perception or a memory and past experience of a constant conjunction of two types of objects. An example of causal reasoning which is not of this type would be an inference based on one carefully constructed experiment. Reasoning which appeals to general causal rules is also a derivative form of causal reasoning.

first object without forming an idea of the second object, noting that “[w]hen we pass from a present impression to the idea of any object, we might possibly have separated the idea from the impression, and have substituted any other idea in its room” (T87).

The second hypothesis Hume considers is that another idea or impression, along with an impression of the cause (or effect) and rationality, causes the mind to form the idea of the unperceived effect (or cause). Noting that we never make the inference from an impression of one object to an idea of some other object without the aid of experience, Hume forms the hypothesis that our memory of the observed constant conjunction of objects of two kinds is one of the factors that, along with the present impression, causally determines a rational mind to make causal inferences. The hypothesis is that when we have an impression of an object and have had experience of a constant conjunction of objects of that kind with objects of another kind,⁷ we are determined by reason to form an idea of an object of that second kind. Hume notes that this hypothesis does not look very promising, since it seems that a mere repetition of an experience of two objects being conjoined could not give rise to any new idea that would bridge

⁷ I take it for granted here and throughout the paper that when Hume talks about past experience of constant conjunction he means something more than simply having been exposed to conjoined objects of two types. A person who has past experience of a constant conjunction is one who was aware of the conjunction in each particular case, who remembers these cases (though the memory need not and, in many cases, could not be reflective), and who has noticed the pattern (though he need not have reflected on the pattern). Thus, past experience of a constant conjunction always involves memory, though this memory need not be reflective. A person whose memory had been entirely wiped out would be one who had no past experience of constant conjunction.

the gap between the impression of the first object and the idea of the second or provide the idea of a necessary connection between the two (T 88). The next hypothesis Hume considers is that the present impression, plus experience, plus reason, plus something else cause the mind to form the idea of the unperceived cause or effect. He reasons that since experience provides only an idea of what objects have been found to be connected *in the past*, the idea that could bridge the gap between the ideas we have initially and the idea they give rise to is the idea "*that instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues always uniformly the same*" (T 89). This hypothesis looks very promising, since if the mind contained the idea that unobserved instances must resemble observed instances, it could be determined by reason, along with a present impression of an object and the memory of an experienced constant conjunction of two kinds of objects, to form the idea of the absent object. The question then becomes whether an idea of the uniformity of nature could arise in the mind on the assumption that the senses, memory, and reason are the only sources of our ideas.

Since it is clear that neither the senses nor memory could be the source of such an idea, the only remaining hypothesis is that reason (operating alone or in conjunction with the senses and memory) produces the idea. In considering this hypothesis, Hume construes reason broadly, as including demonstrative reasoning and probable reasoning (T 89).⁸ If we

⁸ For a discussion of the significance of Hume's including probable reasoning along with demonstrative reasoning as a possible source of the idea that unobserved instances resemble observed instances, see Chapter 4 of Garrett (1997). For a detailed discussion of the distinction between demonstrative and probable reason, see Owen (forthcoming).

actually have such an idea, and the only sources of ideas are the senses, memory, and reason, then the idea must be produced either by demonstrative reasoning or by probable reasoning. Given that it is not inconceivable that the course of nature should change, demonstrative reasoning could not produce that idea (*T* 89). The only remaining hypothesis is that probable reasoning produces the idea. Hume rejects this hypothesis, because "probability is a principle that is founded on the presumption of a resemblance betwixt those objects, of which we have had experience, and those of which we have had none; and therefore 'tis impossible this presumption can arise from probability. The same principle cannot be both the cause and effect of another" (*T* 90). According to Hume, probability is a principle of inference which causes us to move from belief in one thing, "something present to the mind, either seen or remember'd" (*T* 89), to belief in "something connected with it, which is not seen or remembered" (*T* 89). Hume argues that we could not be determined by probable reason to pass from something seen or remembered to something else that is not seen or remembered unless we had the idea that instances of which we have had no experience must resemble those of which we have had experience. However, if probable reasoning is what produced our belief in the principle of the uniformity of nature, then probable reasoning would have to both cause our belief in the principle of uniformity and be the effect of our belief in that principle. Noting that nothing can be both the cause and the effect of itself, Hume concludes that belief in the principle of the uniformity of nature cannot be produced by probable reasoning. This hypothesis must be rejected.

At this point in the discussion, Hume concludes that since there is no way that the mind could be determined by reason to make an inference from an impression of a cause to

an idea of its effect, even if it has experience of a constant conjunction of objects of that kind with objects of another kind, and since this impression and past experience are the only reasons we have for believing that the unobserved object exists, the mind is not determined by reason to make causal inferences (T 92). Hume does not then conclude that all beliefs based on causal reasoning are irrational, but only that the reasons we have for such beliefs could not cause the beliefs if the only faculties of rational belief fixation were the senses, memory, and reason (including the faculties of both demonstrative reasoning and probable reasoning).

Since there is plenty of evidence that we do make causal inferences and that past experience and present impressions are our reasons for drawing conclusions about the existence of an unperceived cause (or effect), Hume can conclude that if reason is not the cause of the inference, then it must be something else (T 92).⁹

III. THE GENERAL LINES OF HUME'S JUSTIFICATION OF INDUCTION

A justification of causal inferences is to be found in the parts of the *Treatise* and the *Enquiry* where Hume develops his positive account of causal reasoning. In these passages he proposes to explain what causes actually induce us to have beliefs in the existence of unperceived objects when we have impressions of their causes or effects.

⁹ In the *Enquiry* Hume talks about arguments rather than reason, saying at the end of Section IV ("Sceptical Doubts concerning the Operations of the Understanding"), "[i]f the mind be not engaged by argument to make this step, it must be induced by some other principle of equal weight and authority" (E 41).

Hume had already noted that when we make causal inferences, our reasons for believing in the existence of some unperceived object which is supposed to be either the cause of something we perceive or the effect of some such object were experience of a constant conjunction of two kinds of objects (or events) and a present impression of an object (or event) of one of these kinds. These things were also taken to be causes of our making the inference, but Hume had found that they were not capable of causing us to make causal inferences, even in conjunction with reason. His task, then, is to discover how these causes (which are also reasons) could operate on our minds so as to produce a belief in the existence of an object that is neither seen nor remembered.

The general lines of Hume's positive account are well known. Hume claims that experience of constant conjunction and a present impression operate on our minds by suggesting the idea of an object of the kind that has been constantly conjoined with the kind of object of which we have an impression. The explanation of our forming the idea of an object that resembles objects that we have found to be conjoined with objects that resemble the object of which we have a present impression is that experience has established a connection of these ideas in the mind such that when we have one idea, our imagination takes us to the other. It is a principle of the imagination, rather than of reason, that is causally implicated in the transition we make from an impression of one object to the idea of some other object. This is Hume's explanation of how we come to have an idea of the unperceived cause (or effect).

The explanation of our belief in the existence of that unperceived cause (or effect) cannot be exactly the same as the explanation of our forming an idea of that unperceived object, for, as Hume notes, we can conceive of an object as ex-

isting without believing that it exists (T 94). When we engage in causal reasoning (at least in the first instances), we not only form an idea of an unperceived object, we also believe that the object exists. To explain this phenomenon Hume has recourse to his claims about the nature of belief – namely, that beliefs are simply ideas that have more force or vivacity, or that affect the mind more strongly, than mere conceptions. On the supposition that this force or vivacity can be transferred from one mental perception to another, the phenomenon of belief in an unperceived object can be explained.

Hume's claims about custom's producing our belief in an unperceived cause (or effect) are merely claims about the causal mechanism or principle that determines us to make causal inferences; they are not claims about the reasons we have for our beliefs. The reasons we have for believing that the unperceived object exists are, according to Hume, merely our experience of a constant conjunction of two types of objects and our present impression (or memory) of an object of one of the two types that have been experienced to be constantly conjoined.

It is true that Hume usually describes past experience and present impressions as the "foundations" of our reasoning, rather than as reasons for the beliefs in which our reasoning terminates. For example, he says, "the force and liveliness of the perception ... lays the *foundation* of that reasoning which we build upon it" (T 86, my italics), and "the transition from an impression present to the memory or senses to the idea of an object, which we call cause or effect, is *founded on* [my italics] past *experience*, and on our remembrance of their *constant conjunction*" (T 88). It may be objected that when Hume talks of foundations of reasoning, he is talking only about causes and not about reasons.

the causes of our beliefs but also that our putative reasons are actually reasons or that they have some evidential or logical relevance to the beliefs based on them.

Once this demand is made, the sceptic seems to have the upper hand, and Hume himself seems to have provided the arguments that make the sceptic's case. For Hume provided the materials necessary to show that there is no non-question begging way to *prove* that our putative reasons are actually reasons. He argued that to *prove* that experience of constant conjunction and a present impression are actually reasons for believing in the existence of an unperceived object one would have to show that there is a connection between the beliefs that are supposed to be our reasons for the inferred belief and the inferred belief itself – either the truth of these initial beliefs makes the inferred belief more likely to be true or the inferred belief could not possibly be false were the beliefs the serve as reasons for them true.

In proving that the mind is not determined by reason – demonstrative or probable – to make the inference from an impression of a cause to the idea of its effect or from the impression of an effect to the idea of its cause, Hume, in effect, shows that there is no non-circular way to prove that the putative reasons we have for beliefs based on causal reasoning are actually reasons for those beliefs. For in showing that we are not determined by demonstrative reason to make the inference from cause to effect, Hume showed that conclusions concerning the existence of an unperceived cause (or effect) could be false even were the beliefs that serve as the reasons for those conclusions (namely, beliefs concerning the existence of the perceived effect (or cause) and beliefs concerning the experienced constant conjunction of the two types of object) true. This is hardly interesting, since no one believes that there is an entailment relation between propositions express-

ing the beliefs that serve as our reasons when we engage in causal reasoning and the propositions expressing the beliefs that we come to have as a result of such reasoning.

In showing that we are not determined by probable reason to make the inference from cause to effect, Hume showed that there was no non-circular way to justify the principle of the uniformity of nature. Such a principle must be invoked if we wish to prove that our putative reasons really are reasons, for if we do not suppose that nature is uniform, we have no way of proving that anything that happened in the past has any relevance to what happens in the present or future. If we cannot show that, then we cannot prove that were the beliefs that we take to be our reasons true, the conclusions that we reach in our causal reasoning would be likely to be true (and thus that there is an evidential connection between our putative reasons and our beliefs based on them). Thus, Hume has shown that there is no non-circular way of proving that what we take to be reasons really are reasons. Only if we assume that nature is uniform can we have any reason to think that our putative reasons are reasons. This assumption cannot be justified either by appeal to principles of rationality or by an appeal to experience, so this proof will only be acceptable to those who are willing to accept the principle without being able to justify it.

For this reason the justification of induction that I attribute to Hume might be called a merely popular justification: it appeals to beliefs we all share (either, that experience and present impressions are actually reasons for believing in the existence of an unperceived object or that nature is uniform), and it stands only as long as we do not require a justification of those beliefs. To provide such a justification, Hume would have to justify the claim that the putative reasons for our beliefs are actually reasons, and that is something which Hume

ing the claim that it is irrational to believe what we know cannot be proven. I shall discuss this reply in the following section.

It may seem that my interpretation is at odds both with Hume's own view of his philosophical position, which he characterizes as a form of scepticism, and with such statements as the following: "We have, therefore, no choice left but betwixt a false reason and none at all" (*T* 268) and "If we believe, that fire warms, or water refreshes, 'tis only because it costs us too much pains to think otherwise" (*T* 270). Of course, these statements themselves seem to be at odds with other statements that Hume makes, such as "[s]ince therefore 'tis possible for all objects to become causes or effects to each other, it may be proper to fix some general rules, by which we may know when they really are so" (*T* 173), "[W]e might hope to establish a system or set of opinions, which if not true (for that, perhaps, is too much to be hop'd for) might at least be satisfactory to the human mind, and might stand the test of the most critical examination" (*T* 272), and "[M]y only hope is, that I may contribute a little to the advancement of knowledge, by ... pointing out ... more distinctly those subjects, where alone [philosophers] can expect assurance and conviction" (*T* 273).

These passages should remind us that Hume never denies that human beings can and do have knowledge of matters of fact that go beyond what is present to the senses or memory. His scepticism is not that radical. The sceptical points he does make are (1) that human knowledge is limited in scope and (2) that human knowledge rests on principles that can be neither established nor justified by reason. My interpretation is consistent with these sceptical points, as well as with Hume's

claims that human beings can and do have knowledge of such things as that fire burns and water quenches thirst.¹¹

IV. HUME'S ANSWER TO THE SCEPTIC

Since Hume provided a justification of causal reasoning which rested on the unjustified (and unjustifiable) assumption that when we engage in causal reasoning our putative reasons are really reasons or that nature is uniform, the only sceptical worry that remains is the one concerning the principle of the uniformity of nature. Hume concedes that this principle may be false. He also shows that we can have no more reason to think that it is true than to think that it is false (unless we beg the question, arguing that nature has always been uniform in the past). We are thus left with a choice between accepting a principle that we know cannot be justified or suspending belief on the grounds that we ought not to believe anything which we cannot justify.

Hume replies to those who would urge the suspension of belief. His reply challenges the claim that it is always more rational to suspend belief when we know that our opinions rest on assumptions that we cannot justify than to accept assump-

¹¹ It should be noted that Hume does present a case for scepticism about reason (which includes both demonstrative and probable reason) in *T* IV, iii. The arguments he gives there are quite different from the arguments he gives against the view that the mind is determined by reason when it judges cause and effect.

The argument in *T* IV, iii have been criticised by a number of commentators, including Passmore (1952), Stove (1973), and Fogelin (1985). See Morris for a discussion of these criticisms and a more sympathetic (as well as interesting) interpretation of Hume's argument and the role it plays in the *Treatise* in "Hume's Scepticism about Reason." (Morris (1989)). Karlsson responds to Morris' interpretation (Karlsson(1990)). See also Dauer (1996).

tions that we know cannot be justified. The reasons he adduces are merely reasons for accepting an unjustifiable assumption. They are not, and could not be, reasons for believing that that assumption is true.

Hume's reasons for thinking it is rational to accept the unjustifiable assumption that our putative reasons are really reasons or that nature is uniform is that if one fails to do so one would have to "reject all belief and reasoning" (*T* 268), since this assumption is the foundation of all reasoning and belief. He also argues that were one to reject all belief and reasoning, rational, goal-directed action would be impossible. For if every opinion is as probable as every other, there is no reason to do one thing rather than another in order to attain one's goals.

In the *Enquiry*, Hume says that "the chief and most confounding objection to *excessive* scepticism" (*E* 159) is that "no durable good can ever result from it; while it remains in its full force and vigour" (*E* 159). The Pyrrhonian sceptic does not hope to "produce a conviction, which will remain constant and durable, with his audience" (*E* 160). Neither does he propose that we accept principles that "have an effect on conduct and behavior" (*E* 160).

Hume does seem to think that the Pyrrhonian sceptic has a point that survives even "[w]hen he awakes from his dream" (*E* 160). According to Hume, he must then admit that his speculations "have no other tendency than to show the whimsical condition of mankind, who must act and reason and believe; though they are not able, by their most diligent enquiry, to satisfy themselves concerning the foundation of these operations, or to remove the objections, which may be raised against them" (*E* 160).

The connection between scepticism and attempts to justify the understanding or to satisfy ourselves concerning the

foundation of the operations of the understanding is noted in the *Treatise* as well. There Hume says "Tis impossible upon any system to defend either our understanding or senses; and we but expose them farther when we endeavour to justify them in that manner" (T 218). In both works, Hume links excessive scepticism to failed attempts to find and justify the foundations of our reason and our beliefs. In the *Treatise*, he responds by recommending "[c]arelessness and in-attention" as a remedy to sceptical doubts that arise in this way (T218).

Carelessness and inattention seem rather unphilosophical attitudes and hardly compatible with Hume's general philosophical style. That he should prescribe them seems odd. This oddity can be explained away, however, when we note that carelessness and inattention seem to be exactly what a careful and attentive philosopher would prescribe at a certain point – namely, at the point where it can be shown that no non-question begging arguments can be given either for or against a belief that is so fundamental that it is presupposed in all other beliefs and reasoning. I have argued that in his discussion of causal reasoning, Hume offers good reasons for thinking not only that the justification of causal reasoning must end somewhere, but also that it must end with something like the justification he offered. If this interpretation is correct, then we can make sense of Hume's claim that the only remedy to excessive scepticism is carelessness and inattention. We can at the same time make sense of his claim that human knowledge is possible, even though it is limited in scope to matters of fact discovered by experience and relations of ideas discovered by reason.¹²

¹² A version of this paper was read at the Twenty-first Hume Conference (Rome, 1994). I should like to thank the participants for helpful comments on that draft. I should also like to thank Janet Le-

REFERENCES

ARNOLD, N. S. (1983). Hume's Skepticism about Inductive Inferences, *Journal of the History of Philosophy*, XXI pp. 31-55.

BAIER, A. (1991). *A Progress of Sentiments. Reflections on Hume's "Treatise"*. (Cambridge, Mass., Harvard University Press)

BEAUCHAMP, T. L. and ROSENBERG, A. (1981). *Hume and the Problem of Causation*. (Oxford, Oxford University Press).

BROUGHTON, J. (1983). Hume's Skepticism about Causal Inferences, *Pacific Philosophical Quarterly*, LXIV pp. 3-18.

DAUER, F. W. (1980). Hume's Skeptical Solution and the Causal Theory of Knowledge, *The Philosophical Review*, LXXXIX pp. 357-378.

———. (1995). Humean Naturalism and the Problem of Induction, paper presented at the Twenty-Second Hume Conference, Park City, Utah, 1995.

———. (1996). Hume's Scepticism with Regard to Reason: A Reconsideration, *Hume Studies*, XXII , pp. 211-229.

FOGELIN, R. J. (1985). *Hume's Skepticism in the "Treatise of Human Nature"*. (London, Routledge and Kegan Paul).

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- GARRETT, Don, (1997). *Cognition and Commitment in Hume's Philosophy*. (Oxford, Oxford University Press)
- KARLSSON, M. (1990). Epistemic Leaks and Epistemic Meltdowns: A Response to William Morris on Scepticism with Regard to Reason, *Hume Studies*, XVI, 121-130.
- MORRIS, W. E. (1989). Hume's Scepticism about Reason, *Hume Studies*, XV, pp. 39-60.
- OWEN, D. (forthcoming). *Hume on Reason, Reasoning, and Belief*. (Oxford: Oxford University Press, forthcoming).
- PASSMORE, J. (1952). *Hume's Intentions*. (Cambridge, Cambridge University Press).
- STOVE, D.C. (1973). *Probability and Hume's Inductive Scepticism*. (Oxford, Clarendon Press).

