Hume remarked that the process of inductive reasoning cannot be justified without circularity. From this he inferred, in his philosophic intervals, that both natural science and everyday belief are without rational foundation. But he discovered, in between those intervals, that he could not help continuing with both of them, and he rightly suspected that the rest of us would find the same. His overall conclusion from this whole affair was that we had better take it "philosophically": accept the situation, allow for it in our theorizing, and put up with it in life.

On this question, several views have since been held. Some say that Hume was wrong: that inductive inference can after all be justified—usually by some complex calculations referring to "probability" and invented since his time. For these people, Hume's argument fails because the first premise is denied.

Others grant Hume's point but declare it too obvious for anything much to be inferred from it. Induction can't be justified, they say, of course it can't; the question was a silly one to raise, so nothing can follow from our inability to answer it. "Rational foundations" are not a thing that natural science or everyday belief could have; and if they couldn't possibly have it, they can't really lack it either. Yet even these hard-headed reasoners return grateful thanks to Saint David, from time to time, for helping us all to see the obvious.

A third group accept Hume's premise and his depressing inference but propose to supply from elsewhere the justification that he failed to find. Success, they mostly say, is what matters; and you can tell by looking which sorts of reasoning are a success. Once a study has entered on "the sure path of a science," there can be no question of a logician undermining it. Philosophers with doubts about the so-called foundations of physics are like the Aristotelian who refused to look through Galileo's telescope.

I have to disagree with all three views. Hume, I believe, was right to hold that inductive reasoning cannot be justified without circularity. And this does matter—a point that the second group deny. There is some general significance in the inevitable circularity that any appeal to the Uniformity of Nature must involve.
Indeed, the same point must be made in other spheres as well: for example, history depends on memory, and reliance on memory cannot be justified without circularity.

The conclusion to be drawn, however, from this generalised version of Hume's point, is different from his. Inevitable circularity of justification, I suggest, is a mark of a basic and independent area of knowledge and of life. If one asks, as one sometime should ask, whether Science, History, Morality, and the rest deserve their honorific capitals—whether they are really distinct provinces of intellectual life, not arbitrary carve-ups to suit the current convenience of academics and librarians—then an answer can be found by looking for logical irreducibility between these areas. This states in a more general way the point that struck Hume so forcibly in the particular case of scientists' inductive reasoning.

As the two cases of Inductive Science and Morality, which Hume did consider, are in consequence so exhaustingly familiar, this proposal may better be expounded in connection with the third area: Memory and History.

History depends on memory. I need to remember something in order to repeat it to you, whether verbally or in a document; and you in receiving and using my report need to remember who I am and what I am reporting on. Page 23 of any consecutive document is what it is partly as the immediate successor of page 22 and the indirect successor of pages 1, 2, 3, . . . to 21; and we need to remember all this (at least implicitly) when studying page 23.

Now memory is fallible. Not everything that Smith thinks he is remembering actually happened for him to remember it. The resulting uncertainty may apply to details of a real event: that bishop at Brighton, was he wearing a boater or a bowler hat? But Smith may also "remember" something that did not happen at all: maybe he never went to Brighton, or met a bishop, in his life.

Now we may decide, for safety, always to put "remember" in quotation marks or to say that Smith appeared to himself to be remembering the incident. Such verbal amendments may preserve consistency in usage, but they will not make the problem of knowledge go away. For in the new terms Smith only ever has seeming-memories of bishops and Brighton and bowler hats. Some of those seeming-memories may be veridical, but he can't tell which except by some appeal to (real) memory.

At this point Russell comes in, I seem to remember, and says that if any memory be fallible, then maybe all of them are—a point that Descartes made about ideas in general. Russell regarded this possibility as unconvincing but unfortunately irrefutable. Of
course, if it is irrefutable, anyone is free to be convinced. Philip Gosse, for example, was convinced that God had put the fossils in the rocks, about 4000 years B.C., to fool those impious geologists he regretfully foresaw arising some six thousand years later. I myself cannot separate Gosse’s conviction from his preference: he wanted to study both Genesis and geology, and his theory permitted this. His contemporaries laughed at him, but then most Genesis-watchers do not want to be geologists.

Now, granted that Gosse’s view and Russell’s suggestion are irrefutable, does this fact show us anything about history or memory? M. G. Singer suggested that Russell’s question, like that of Descartes, is nonterminating and therefore properly unaskable. For if Russell asks, How do we know the world did not begin five minutes back, complete with ruins and history books and memories? any answer would itself be historical and so open to the same sceptical attack. And if we asked, more generally, How do we know the truth about any matter of fact? then “any supposed answer to this would purport to be the truth about some matter of fact, and would consequently beg the question. It would be an instance of what is being asked about.”

Such very basic questions are nonterminating, or (I would say) recurring. And such a recurring question has no conclusive direct answer, just because it is recurring; you can always ask the same question again, about the answer you receive. And some hold that a question that can’t be directly settled is not worth asking or is somehow meaningless. This last view, I believe, is wrong, as can be shown by pointing out a significance that such recurring questions have for us.

Consider a drunken Descartes in the fog. Is this, he asks, a lamp-post that I see before me? Yes it be, replies the constable. Now Descartes can either take his word for it or blunder on and find out for himself. Instead, he sits down on the pavement and goes all philosophical. “Can we ever be sure of anything that we seem to see?” The constable has no answer to this, nor can it be settled by blundering on. It has no direct answer of the “yes-ouch” variety. But it does have answers, three bags full of books of them in any college library. And those answers are not nonsense, or ridiculous, though they may not exactly appeal to the constable.

And what can drunken Descartes’s question do for us? When we realize its recurring character, this may lead us to recognize the autonomy, the logical basicness and independence, of the range of experience he is asking us to “justify.” If that range of experience really is autonomous, then we shall not, of course, be able to
justify statements about it by reference to statements about something else. So no satisfactory direct answer can be given to the request for justification. But this very fact may lead us to see the autonomy of that range of experience.

Questions of autonomy can of course be debated in many different ways. They are a staple of the philosophic diet, but still, you needn't have the same jam on them each time. Is there any advantage then, in the Descartes-Hume-Russell-Singer way of considering autonomy? Yes, a recurring question looks like a conundrum and so makes it obvious that something unusual is afoot. Just so, a tautology looks queer: its form carries the warning DANGER, DEFINERS AT WORK; and a contradiction tips us the formal wink that a paradox-monger is addressing us. A recurring question, if you try to answer it, shows you that the same question can be asked again—i.e., that the question is a recurring one; and this shows that the range of experience in question is fundamental and autonomous.

Let us return to Hume. He asks how an inference from past experience to likely future ones can possibly be justified. He shows that it cannot be justified a priori, by deduction from general propositions held to be self-evident. And if you try to justify it on the basis of experience, you are (in a way) begging the question; at least, you are begging for the question to be asked again. It is, then, a recurring question Hume propounds to us. And that shows Induction from experience to be a fundamental, autonomous, unjustifiable range of intellectual activity.

Well, there is a suggestion about recurring questions and autonomy. I can't prove it—for to what more general premises might one appeal? If people fancy it, they can take it away and try it out and see whether it will work for them.

There is however one question—not a recurring one—that I would like to raise. Russell asked how you could be sure that memory really does refer, and to a real past; Hume asked how you could tell, in general, that induction is reliable. In both cases, I suggested, the recurring nature of the question shows that the thing being questioned (Memory or Induction) is a fundamental and autonomous area of human thinking and experience. But—and this is my query—are Memory and Induction similar sorts of thing? It seems not. Memory yields data, but Induction is a way of dealing with data: it is a mode of inference.

If this distinction is valid, then, among the ultimate presuppositions of our present scientific life (which we may hope to recognize as such from the recurring nature of any sceptical
question that refers to them)—among these there will be both basic, fundamental data and original, indispensable modes of inference. It is common usage to refer to both of these as principles, and it is of course possible to formulate either of them in a proposition. Yet there remains a basic distinction between the things formulated in such principles, between an item given as remembered and a way of proceeding from particular given items to a summary statement of general connection. Both lack justification. But it is one thing to justify a statement of fact and quite another to justify a mode of inference. It is, then, a different sort of justification that either lacks.

Whether being autonomous makes an area of thought viable or useful or reliable is a matter that I have not dared to raise. If someone thinks so, let him start with the case of Astrology, which seems an autonomous and fundamental form of intellectual enquiry and mode of social life.

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5. For example, J. F. Fries, working from his revised version of Kant’s critique, mapped out a set of overlapping yet autonomous “world-views” (the world of bodies as perceived, the world of physics, the world of conscious individuals, etc.), demarcated by the differing sorts of evidence we have for them. See L. Nelson, *Progress and Regress in Philosophy* (1971) 2: 247ff.