ABSTRACT Contemporary discussion of scepticism focuses on the possibility that most or all of our beliefs might be false. I argue that the hypothesis of massive falsity and the associated ‘problem of the external world’ are inessential to the scepticisms of Descartes and Hume. What drives Cartesian and Humean scepticism is the demand for certainty: any possibility of error, however local, must be ruled out before we can claim either justified belief or knowledge. Contemporary philosophers have ignored this form of scepticism because they doubt that the demand for certainty can be motivated. But Descartes provides a sound motivation for this demand in the Meditations.

The role of Professor McLaughlin’s sceptic is to introduce certain ‘sceptical hypotheses’, hypotheses which imply the falsity of most of what we believe about the world. Professor McLaughlin asks whether these hypotheses are coherent and thus whether they can tell us anything about what we are entitled to believe, or to claim to know. He concludes that, semantic externalism notwithstanding, these hypotheses are both coherent and threatening. I shall not question this conclusion but I do wonder whether the fate of scepticism hangs entirely on the coherence of the sceptical hypotheses.

I shall maintain that the root of scepticism, at least as we find it in Descartes and Hume, is the demand for certainty. Recent writers are likely to dismiss this demand for certainty: in their view, inconclusive evidence is quite sufficient both to justify belief and to give us knowledge (should the proposition in question turn out to be true). Like Professor McLaughlin, recent debate focuses rather on the possibility that we might have no evidence at all for our beliefs; that our belief-forming processes might be completely unreliable, undermining both knowledge and justification. It is the sceptical hypotheses which generate this worry—
ordinary error does not—and so it is they alone, not the prosaic fact of our fallibility, which provide grounds for a real sceptical doubt.

Descartes and Hume are standard reference points for discussion of the sceptical hypotheses. Yet, I shall argue, in both Descartes and Hume, the sceptical hypotheses are secondary; what is really doing the work is their demand for certainty. Furthermore Descartes, at least, suggests a way in which this demand might be motivated. Both philosophers do indeed raise ‘the problem of the external world’ but this is only one aspect of their scepticism; we can’t dispatch either the Cartesian or the Humean sceptic just by demonstrating that thought or experience presupposes the existence of an external world. Their sceptical problem is more than the problem posed by the sceptical hypotheses.

I

Cartesian Scepticism. A reader of Descartes’ First Meditation encounters the dreaming hypotheses after only five paragraphs and the evil demon is not far behind. This suggests that these thought experiments do indeed play a central role in his case for scepticism; that Descartes’ scepticism rests on an appeal to the idea that, for all we know, most of our beliefs are false. But the first two paragraphs of that Meditation imply a quite different argumentative strategy.

At the very outset, Descartes sets himself to demolish all of his opinions:

But to accomplish this, it will not be necessary for me to show that all my opinions are false, which is something I could perhaps never manage. Reason now leads me to think that I should hold back my assent from opinions which are not completely certain and indubitable just as carefully as I do from those which are patently false. So, for the purpose of rejecting all my opinions, it will be enough if I find in each of them at least some reason for doubt. (Descartes 1984: 12)

To undermine all my beliefs, I don’t need to suppose that they are all false (i.e. I don’t need a sceptical hypothesis); it is enough if, in the case of each of my beliefs, there is some reason to doubt that belief. Given the demand for certainty we need only the
universal possibility of error, not the possibility of universal error, to destroy all conviction (Williams 1978: 54).

Now one might try to establish the fallibility of each of our claims to knowledge by going through them one by one, highlighting ways in which we might be wrong. Take beliefs based on experience: you think that the trousers match the shirt but the shop lighting could be misleading you; you expect that your friend will soon walk through the mist towards you but this anticipation could be turning a swirl into a silhouette. In each and every case, there will be local sources of error which you didn’t eliminate. But, as Descartes notes, to tackle our convictions individually in this way ‘would be an endless task’ (Descartes 1984: 12). He circumvents this difficulty in the case of beliefs based on experience by locating a source of sensory illusion which is, potentially, present in every case.

At this point, Descartes introduces the dreaming hypothesis. In the past, I have been tricked into thinking that I am sitting in my chair reading a book when in fact I am sound asleep. Couldn’t such a thing be happening now? This is a question I can put to myself whenever I base a belief on sensory experience and so we have a ubiquitous source of error. Note, I need not entertain the hypothesis that I am permanently asleep in order to raise this doubt. All I need is the thought that, on any given occasion, I could be asleep. On this construal, the dreaming hypothesis is not, as yet, a sceptical hypothesis, an hypothesis which implies the total unreliability of our senses.

Next, Descartes slides from this less radical way of taking the dreaming hypothesis to a more radical one. At first, he asks us to recall particular past occasions on which we confused sleeping with waking experience. Such memories presuppose the idea that we are often awake; what they call into question is our ability to tell, on any particular occasion, whether we are awake on that occasion. But in the very next paragraph, Descartes raises the possibility that ‘I do not even have such hands or such a body at all’ (Descartes 1984: 13). At this point, the dreaming hypothesis turns into the thought that I am permanently asleep and that most everything I learn through the senses is false. But why does Descartes introduce such an outlandish hypothesis if he could, as he hoped, find some grounds for doubting each of our beliefs which was not a reason to think them all false?
The Role of the Sceptical Hypotheses

Descartes wishes to articulate a form of scepticism which calls all of our convictions into question and those convictions include some very general beliefs about the world; for example, that there are objects independent of our mind, somehow arranged in space and time. Reflection on local sources of perceptual error cannot throw these into doubt: the possibility of perceptual error due to bad lighting etc. depends on the world being approximately as we think it is. In order to undermine these very general convictions, we do need the idea that our experiences are all produced in some entirely deviant way, for example by an evil demon (Descartes 1984: 13–5); sceptical hypotheses are required to undermine our belief in the external world as such. That is their job. But, in Descartes view, sceptical hypotheses are not required to undermine our convictions about the shape, colour and location etc. of any particular item which we take ourselves to perceive. Ordinary sensory fallibility is quite sufficient for that.

Many philosophers tend to read Descartes’ reminder of the facts of sensory illusion (at the start of the First Meditation) as a mere softening up exercise. On their view, these facts cannot do any sceptical work by themselves since they do nothing to show that sensory experience is, in general, unreliable about the shape and position of things: the general unreliability of the senses is suggested only by the sceptical hypotheses. So the possibility of local perceptual error is not enough to throw doubt on the idea that our senses give us knowledge of our local environment, as well as of the general character of our world. But Descartes’ demand for certainty extends to all belief, however specific, not just to our foundational (methodological) convictions.

Reviewing the argument of the First Meditation in the Sixth, Descartes remembers that while trusting the senses ‘I had many experiences which gradually undermined all the faith I had had in the senses’ (Descartes 1984: 53) and he then quotes examples of towers which looked round at a distance but square from close

1. Does contemplation of this ‘metaphysical possibility’ actually undermine Descartes’ belief in an external world, at least temporarily? This is something Descartes goes both ways on and commentators have also divided on the issue (Descartes 1984: 11, 16 and 243).

2. At this point, my reading of Descartes differs from that presented in (Owens 2000: 85).
up, and so forth. Only then does he mention that 'to these reasons for doubting I recently added two very general ones' (ibid.) viz. the dreaming and the evil demon argument. It is clear that, in Descartes view, sensory knowledge had been thoroughly undermined before the sceptical hypotheses were introduced. And we can’t regain our faith in our senses until we have shown how all these local sources of error can be corrected for and eliminated, a task which Descartes undertakes in the Sixth Meditation.

I conclude that the sceptical hypotheses play a secondary role in Cartesian scepticism. Its primary motor is the demand for certainty and that, together with well known facts about our fallibility, is quite sufficient to undermine the great majority of our beliefs. The sceptical hypotheses are needed only to deal with a special class of highly general beliefs: they make room for a doubt about the existence of an external world which, when combined with the demand for certainty, should suffice to destroy our faith in it. So the task of establishing the coherence of the sceptical hypotheses matters much less to the Cartesian sceptic than that of motivating the demand for certainty. I think the latter, at least, can be done and I will attempt it (with the resources available to Descartes) in the last section.

Descartes tells us that he has gone to great trouble to formulate the strongest form of scepticism so that by answering it he can rid us of the sceptic for ever (Descartes 1991: 333). And what most obviously distinguishes Cartesian scepticism from its ancient predecessors is precisely its use of the sceptical hypotheses (Burnyeat 1982: 43-50). But we should not think that Descartes has invented a new, more powerful kind of doubt, unavailable to the ancients. The sceptical hypotheses do not raise doubts of a kind we never had before; rather they extend the old sceptical doubts as far as they can possibly go. The strongest doubt is just the most extensive doubt and the mechanism for generating this doubt is a traditional one: pointing out the possibility of error. This mechanism is no more powerful than the demand for certainty which lies behind it.

For now, we should be impressed by how little else the Cartesian sceptic need assume once the demand for certainty is in place. This infallibilist demand has often been associated with a foundationalist conception of human knowledge which portrays
properly justified belief as the product of an inference from a class of propositions of which we are certain (e.g. propositions about the character of our experience). Perhaps Descartes is a foundationalist but all the Cartesian sceptic needs is the requirement that we have a conclusive ground for each of our beliefs and the observation that our grounds are always inconclusive. He need presuppose nothing about the theoretical structure or character of these grounds. In fact, he may allow these grounds to have no systematic structure or character at all. What matters is simply whether they are conclusive or not.

Hume's Misreading of Descartes

Hume begins the section of the *First Enquiry* entitled 'Of the Academical or Sceptical Philosophy' with the following description of Cartesian scepticism:

> It recommends an universal doubt, not only of all our former opinions and principles, but also of our very faculties; of whose veracity, say they, we must assure ourselves, by a chain of reasoning, deduced from some original principle, which cannot possibly be fallacious or deceitful. But neither is there any such original principle, which has a prerogative above others, that are self-evident and convincing: or if there were, could we advance a step beyond it, but by the use of those very faculties, of which we are supposed to be already diffident. The Cartesian doubt therefore, were it ever possible to be attained by any human creature (as it plainly is not) would be entirely incurable, and no reasoning could ever bring us to a state of assurance and conviction upon any subject. (Hume 1975: 149–50)

In Hume's view, Cartesian scepticism has three elements (a) the demand that our use of any belief forming faculty be justified without prior reliance on that faculty (b) the demand that this justification give us certainty that the faculty in question is veracious or reliable and (c) the demand that all such justifications be based on a single foundational and self-evident principle.

In this passage, Hume means to be putting Cartesian scepticism to one side so he can raise his own, rather different sceptical problem. He rejects the three part demand which he associates

---

3. For a different reading of Descartes, see (Williams 1986) and (Stroud 1989: 34–9).
with Cartesian scepticism and he does so by rejecting the first demand (which is implicit in the other two), the idea that we should not employ any cognitive faculty until we have first assured ourselves of its veracity. But, as we shall see, Hume is wrong to attribute this idea to Descartes. In fact, Descartes and Hume share much the same conception of what a reasonable method of belief formation must be like and the conception which they share is fundamentally infallibilist.

On Hume’s interpretation, a Cartesian doubt can be raised prior to any reasoning and inquiry: it requires no grounds whatsoever. But this fails to make sense of Descartes’ text. Consider the following statement about beliefs based on clear and distinct perceptions:

> If this conviction is so firm that it is impossible for us ever to have any reason for doubting what we are convinced of, then there are no further questions for us to ask: we have everything that we could reasonably want. What is it to us that someone may make out that the perception whose truth we are so firmly convinced of may appear false to God or an angel, so that it is, absolutely speaking, false? Why should this alleged ‘absolute falsity’ bother us, since we neither believe in it, nor have even the smallest suspicion of it? (Descartes 1984: 103)

Here Descartes is insistent that we can’t induce a doubt about a belief that was based on the method of clear and distinct ideas without discovering some grounds for doubt: we must employ some method of reasoning (even the very one in question) in order to get a doubt going. 

Hume distinguishes ‘antecedent’ scepticism from another form of scepticism which is ‘consequent to science and enquiry’ (Hume 1975: 149–50). Real doubts, the kind of doubts the sceptic seeks to generate, are consequent on inquiry, not antecedent to it. They arise once we begin thinking and reasoning. Hume is surely right that consequent scepticism is the real threat to belief, he is wrong only in failing to see Cartesian scepticism as consequent.

4. (Frankfurt 1970: 25) construes this paragraph as an indication that Descartes has abandoned the correspondence theory of truth and opted for a coherence theory. But the paragraph fails to support this reading. Descartes does not say that the notion of ‘absolute falsity’ is incoherent, just that its possibility does not matter to us. Nor should we attribute a controversial theory of truth to Descartes if we can avoid so doing.
Descartes never claims blankly that our beliefs may be false, that our methods of belief formation might lead us astray; he always tells a story, based on what he takes himself to have learnt of the world by using those very methods, about how reasoning involving them may actually have led us astray. Even the evil demon hypotheses works as a sceptical device for Descartes (in so far as it does) because he takes himself to know that there are powerful spiritual beings, as the brain in a vat hypothesis works for us because experience has taught us about the physical basis of our mental lives.

Furthermore, Descartes’ response to scepticism makes sense only if his scepticism is of the consequent variety. The passage about ‘absolute falsity’ just quoted occurs in the Second Replies where Descartes is rebutting the allegation that he was ‘guilty of circularity when I said that the only reason we have for being sure that what we clearly and distinctly perceive is true is the fact that God exists, but that we are sure that God exists only because we perceive this clearly’ (Descartes 1984: 71). Descartes denies that doubt about what we clearly and distinctly perceive is psychologically possible at the time at which we are clearly and distinctly perceiving it: doubt can arise only in retrospect when we come to reflect on how we formed this belief, a process of reflection which will inevitably employ the very method in question. The point of proving God’s existence is to quiet any such retrospective doubts by establishing that the method of clear and distinct ideas is self-confirming. We can use the method to prove the existence of an omnipotent and benevolent deity and God’s existence in turn guarantees that this method is reliable.

Were Cartesian scepticism of the antecedent variety, the fact that our fundamental methods of belief formation are self-confirming would mean nothing: a completely erroneous method (e.g. counter-induction) might be self-confirming. But a scepticism which is ‘consequent to science and inquiry’ may be answered in this way.5 Once convinced, by the method of clear and

5. Thus, I agree with Frankfurt that Descartes’ argument ‘is an attempt to show that there are no good reasons for believing that reason is unreliable’ (Frankfurt 1970: 175). But whilst Frankfurt’s view is that Descartes felt able to respond to scepticism in this way only because he has endorsed a coherence theory of truth, I hold that pointing out the self-confirmatory character of reason would constitute an adequate response to (consequent) scepticism, regardless of our theory of truth, because it deprives us of any reason to believe that reason is unreliable. On this point, see (Carley 1978: 105–118) and (Williams 1978: 198–209).
distinct ideas, of the presence of an omnipotent and benevolent God, we can see that the course of future inquiry could not undermine that method. And, for Descartes, this should soothe any doubts about it. The method gives us the certainty that knowledge requires.

II

Humean Scepticism. Hume makes fun of the idea that we should ‘have recourse to the veracity of the Supreme Being in order to prove the veracity of our senses’ (Hume 1975: 153); he thinks Descartes’ theological reasoning can deal neither with the antecedent, nor the consequent sceptic and it is hard to disagree. Hume then deploys several different sceptical arguments which seek to demonstrate that our belief forming processes are indeed self-undermining. These arguments form the substance of Humean scepticism. Like Descartes, Hume himself is no sceptic but like Descartes, he deploys sceptical reasonings in order to teach us something about belief. The lesson he has to teach us— that belief is not governed by reason—is not Descartes’ but his way of addressing the issue, by means of consequent scepticism, is remarkable similar.

Before looking at the details of Hume’s sceptical argument, I want to articulate the conception of rational belief he shares with Descartes. For both of them:

1. Reason controls belief by means of the subject’s judgements of the quality of their reasons for belief.
2. Reason controls belief where these reflective judgements can motivate appropriate first-order beliefs.
3. Reason controls belief where the subject’s judgement that they have conclusive grounds for a belief can motivate the corresponding belief (or where the subject’s

6. (Hume 1975: 161) distinguishes what Hume calls ‘excessive’ or ‘Pyrrhonian’ scepticism from ‘mitigated’ scepticism and Hume appears to endorse the latter. In this paper I am concerned only with what Hume calls Pyrrhonian scepticism, the view that we should suspend judgement on all matters. For discussion of mitigated scepticism, see (Stroud 1999) and (Fogelin 1993: 108–13).

7. Hume uses the word ‘reason’ in a number of different senses. In this paper, I am interested in that use of the word on which reason is contrasted with imagination and with its associates habit, instinct and custom.
The most controversial element here is (3), the idea that the subject cannot feel justified in having a given belief, in claiming knowledge, unless it seems to him that he has a conclusive reason for that belief. Descartes distinguishes knowledge from mere conviction as follows:

there is conviction when there remains some reason which might lead us to doubt, but knowledge is conviction based on a reason so strong that it can never be shaken by any stronger reason (Descartes 1991: 147)

The aim of his war against the sceptic is precisely to turn our convictions into knowledge. Hume has a similar notion of knowledge, a similar conception of the aim of rational belief. Indeed the first of Hume’s sceptical arguments is meant to turn on nothing more than the fallibility of our belief-forming mechanisms.

Scepticism about Reason and the Senses

In the section of the Treatise entitled ‘Of Scepticism With Regard to Reason’, Hume attacks the very citadel of reason—deductive inference (taken to include mathematical reasoning)—but not by requiring some antecedent proof that deductive inference is a reliable cognitive mechanism. Who would be surprised to find that we couldn’t establish the veracity of deductive inference without making use of deductive inference? Instead, Hume allows us to employ deductive inference ab initio and then argues that it undermines itself.

Hume’s line of thought goes as follows: once we have experienced the fallibility of any form of reasoning, deductive or inductive, reason itself requires us to make a judgement about how likely that reasoning is to deliver the right result ‘as a check or controll on our first judgement or belief’ (Hume 1978: 180). This higher-order judgement is itself known to be fallible on similar grounds and so we must make a further judgement about how likely it is that our assessment of the chance of error will be correct before we can reach any conclusion at all:
But this decision, though it should be favourable to our preceding judgment, being founded only on probability, must weaken still further our first evidence, and must itself be weakened by a fourth doubt of the same kind, and so on in infinitum; till at last there remain nothing of the original probability, however great we may suppose it to have been, and however small the diminution by every new uncertainty. (Hume 1978: 182)

Hume concludes that reason subverts itself. This argument has great generality: it applies to any form of reasoning of which we have had enough experience to realise that it is fallible. But it rests on some rather dubious probabilistic reasoning and by the time Hume came to write the *Enquiry*, it had been dropped in favour of other sceptical arguments of rather narrower scope but with a similar form.

Take the habit of basing belief on experience. Hume attaches no great significance to the facts of sensory illusion which are
only sufficient to prove, that the senses alone are not implicitly to be depended upon; but that we must correct their evidence by reason, and by considerations, derived from the nature of the medium, the distance of the object, and the disposition of the organ, in order to render them, within their sphere, the proper criteria of truth and falsehood. There are other more profound arguments against the senses, which admit not of so easy a solution. (Hume 1975: 151)

These remarks might seem put a great distance between Hume and Descartes, at least on my reading of Descartes. But no; Hume asserts that sensory fallibility is not worrying only because he thinks we can always correct for it. Descartes would agree; he spends much of the Sixth Meditation telling us how to avoid sensory error altogether. This is no more than a pious hope on both their parts. It is hard to see how, even in a case where we put our minds to it, we could eliminate all possible sources of local perceptual error; a fortiori in the generality of cases, given the constraints on our time and imagination.

Putting this to one side, what is the ‘more profound argument’ Hume mentions? It is based on an assumption which Hume thinks the ‘slightest philosophy’ will confirm, namely ‘that nothing can ever be present to the mind but an image or perception, and that the senses are only the inlets, through which these
images are conveyed, without being able to produce any immediate intercourse between the mind and the object'. (Hume 1975:152)

Given this assumption, Hume’s sceptical reasoning runs as follows:

It is a question of fact, whether the perceptions of the senses be produced by external objects, resembling them; how shall this question be determined? By experience surely, as all other questions of a like nature. But here experience is, and must be entirely silent. The mind has never anything present to it but the perceptions and cannot possibly reach any experience of their connection with objects. The supposition of such a connection is, therefore, without any foundation in reasoning. (Hume 1975:153)

Humean scepticism about the senses is clearly consequent. The Humean sceptic is not requiring, in advance of any reliance on sensory experience, that we justify such reliance by ruling out the possibility of illusory experience. Rather, he is using sensory experience to undermine sensory experience as follows.

Having begun by basing your beliefs on sensory experience (correcting it with a bit of inductive reasoning) you quickly learn (e.g. by pressing your thumb against your eyeball) that the objects of vision are not external items. So by what means do you know of such external items? Certainly not by direct experience. Perhaps then by inductive inference from the occurrence of the image you directly experience to the presence of a material object which resembles it: after all, I take myself to know that the sun will rise tomorrow in advance of any experience of its rising tomorrow. But, however cogent it is in general, inductive inference cannot help in this instance because we have no past experience of the connection between sensory images and external objects on which to base such an inference. Therefore, we must admit that our own recognised procedures of inquiry will not support it.

Does Hume’s deployment of this argument make him a sceptic? No. Hume himself is not endorsing the theory of perception which this argument invokes. In fact, he says, it contradicts ‘the universal and primary opinion of all mankind’ (Hume 1975:152). Hume simply observes that this theory is among ‘the obvious dictates of reason’ which ‘no man, who reflects, ever doubted’
The universal and primary opinion reasserts itself whenever we cease to reflect and Hume offers no view on which opinion is right: he merely maintains that each is convincing in its own sphere and that they are in tension with one another.

So what is Hume trying to achieve with these sceptical arguments? Hume is seeking to establish that reason does not govern belief. Reason is a faculty that works by means of reflection, by means of judgements about the probative force of our grounds for belief. If reason controls belief then we can determine what we believe simply by making a judgement about what we ought to believe. In order to establish that reason does not control belief, all Hume must do is to present certain lines of thought which human beings happen to find compelling, arguments which tend to convince us (given the way we are made) that our belief in an external world is unjustified, and then observe that our belief in this external world is impervious to such argumentation (Hookway 1990: 106).

Humean scepticism about the senses presupposes the coherence of the idea that we could have all the sensory images we do without there being any external items corresponding to them. But Hume has no special interest in the sceptical hypotheses. He is happy to employ any argument which appears to convince us that our beliefs are unjustified, whether or not it depends on a sceptical hypothesis. If reflection on past experience of our fallibility alone will do the job, fine. If we happen to find the sceptical hypotheses threatening, that’s just fine too. The crucial thing about any sceptical argument is that it should impress us, at least at the level of reflection. The problem with antecedent scepticism is that it doesn’t work even at that level: no one feels obliged to justify their belief forming procedures in advance of making any use of them (a point Descartes would fully endorse).

This reading of Hume is confirmed by what he says in the Treatise. Hume foresees the following objection, directed not at the particular sceptical argument he has just put forward but against the whole idea of a sceptical argument:

“If the sceptical reasonings be strong, say they, ‘tis a proof, that reason may have some force and authority: if weak, they can never be sufficient to invalidate all the conclusions of our understanding.”

(Hume 1978: 186)
Here is Hume’s answer to the objection:

Reason first appears in possession of the throne, prescribing laws, and imposing maxims, with an absolute sway and authority. Her enemy, therefore, is obliged to take shelter under her protection, and by making use of rational arguments to prove the fallaciousness and imbecility of reason, produces, in a manner, a patent under her hand and seal. This patent has at first an authority, proportioned to the present and immediate authority of reason, from which it derived. But as it is supposed to be contradictory to reason, it gradually diminishes the force of that governing power, and its own at the same time; till at last they both vanish away into nothing, by a regular and just diminution. (Hume 1978: 186–7)

Hume starts from the idea that belief is governed by reason, that every human being, at least in so far as they are rational, has the ability to motivate belief simply by forming a view about what they have reason to believe. Hume then takes any judgement of the form ‘I have reason R to believe that p’ and seeks, by some line of thought or other, to induce the countervailing judgement that R is no reason to believe in p. To give us a recipe for doing this in the case of every such judgement would be to abolish reason’s reflective control over belief by means of reason alone. Reason stultifies itself. And the sceptic can demonstrate that reason’s reflective control is self-undermining in just this way without undermining himself.

Scepticism about Induction

Until now, I have ignored the very sceptical argument for which Hume is most famous. This is no accident. Hume’s discussions of inductive inference in the Treatise (Hume 1978: 86–94) and the Enquiry (Hume 1975: 25–39) pose a problem for my reading of Hume because they both suggest that Humean scepticism about induction is a form of antecedent scepticism. How can we reconcile this fact with Hume’s firm rejection of antecedent scepticism later on in the Enquiry? The answer to this question reveals the role played by certainty in Hume’s conception of reason.

Hume’s argument against induction takes a form which is familiar to us all from undergraduate textbook discussions of scepticism. He starts with a set of data which we are assumed to know
without inference. Since Hume has not yet introduced scepticism about the senses, he permits us to rely on the deliverances of both sensation and memory. Hume then points out that the inference from the fact (which we know through the senses) that the sun rose this morning to the fact that it will rise tomorrow morning is non-demonstrative. Demonstrative inferences are monotonic—a valid demonstrative argument for a given conclusion gets no stronger with the addition of further premises—but clearly, the more times we have seen the sun rise, the more confident we should be in inferring that it will rise tomorrow. So inductive inference is non-monotonic and therefore non-demonstrative.

What sort of reasoning is involved in inductive inference?

To say it is experimental, is begging the question. For all inferences from experience suppose, as their foundation, that the future will resemble the past... If there be any suspicion that the course of nature may change, and that the past may be no rule for the future, all experience becomes useless and can give rise to no inference or conclusion. It is impossible, therefore, that any arguments from experience can prove this resemblance of the past to the future; since all these arguments are founded on the supposition of that resemblance. (Hume 1975: 37–8)

Hume concludes that inductive inference cannot be regarded as reasoning but must be treated as a product of non-rational custom and habit.

The form of Hume's argument here clearly suggests an antecedent scepticism about induction. Hume makes no attempt to demonstrate that inductive inference is self-undermining. Indeed, he implicitly concedes that induction may be self-confirming, that by using induction we could (pretend to) establish the uniformity of nature. His complaint is that such a procedure would be circular, the very complaint Descartes' critics brought against his theological argument for the reliability of his method of clear and distinct ideas. How can this be reconciled with Hume's scornful dismissal of any sceptic who demands that we test the reliability of each of our belief-forming faculties before placing any reliance on them?

In fact, Hume does not make the quite general demand implicit in antecedent scepticism: he permits us to rely \textit{ab initio} not only
on demonstrative reasoning but also on the deliverances of sense and memory. Clearly, he sees some difference between these methods of belief formation which do not require prior vindication, and inductive inference which does. The difference is not hard to find.

Those methods of belief formation which are acceptable \textit{ab initio} all purport to give us conclusive reasons for belief. This is clearly true of demonstration but, for Hume, it is equally true of sensation and memory. Hume remarks that an inductive inference must be based on ‘an impression of the memory or senses, beyond which there is no room for doubt or inquiry’ (Hume 1978: 83). Both memory and the senses appear to bring the object of belief itself before the mind and so there is no apparent room for error, no grounds for a prior doubt. Of course, once we have relied on sensation for a bit, we discover that it misleads us on occasion but we don’t need experience of error to know that induction might mislead us: induction never even purports to give us conclusive reasons for belief. We know \textit{a priori} that inductive reasoning is non-monotonic, that the cogency of an inductive inference is a matter of degree. That is why scepticism about induction does not need to undermine induction from within; that is why antecedent scepticism about induction is effective (at the level of reflection). The grounds for a real doubt are already present at the very outset.

Descartes and Hume both distinguished beliefs produced by reason from beliefs produced by the imagination (i.e. by instinct, custom and habit), an imagination which we share with the beasts. In their view, a method of belief formation presents itself as a method of reasoning only if it appears to justify certainty about its conclusions. Any method of belief formation which fails to promise certainty must first be vindicated by a proper method of reasoning before we can rely on it. And if this can’t be done, we must admit that to form beliefs by that method is to yield to the workings of our imagination. Since induction could not be so vindicated, Hume made the required admission:

the experimental reasoning, which we possess in common with the beasts, and on which the whole conduct of life depends, is nothing but a species of instinct or mechanical power that acts in us \textit{unknown to ourselves} (my italics) (Hume 1975: 108)
And he thought the same applied to any method of belief for- 
motion. For Hume, 'belief produced by reason' is an empty cate-
gory, for him, our beliefs are governed by the very principles of
instinct and imagination which rule the mental lives of the beasts.

III

Descartes, Freedom and Certainty. Why did Descartes think that
no rational believer could convince himself of anything by reflec-
tion on inconclusive evidence for it? Descartes' Fourth Meditation
contains a discussion of intellectual freedom and his theory of
error. Most commentators have found this part of Descartes' text
hard to construe and it plays rather a peripheral role in their
account of Cartesian scepticism (e.g. (Williams 1978: Chapter 6)
and (Wilson 1978: 139–50)). But I shall argue that it is the
Fourth Meditation which motivates Descartes' demand for certainty.

Theodicy

At first glance, the Fourth Meditation is no more than an exercise
in theodicy. Descartes is out to explain how an omnipotent and
benevolent God could allow us to acquire false beliefs. He treats
this as a specific form of the problem of evil and deploys several
of the traditional responses to this problem. Of particular interest
is the so-called 'free will defence', according to which evil is the
result of an exercise of man's free will and is therefore not God's
responsibility. Descartes applies the free will defence to false
belief, saying that error comes of our choosing to form a view
when we have no conclusive grounds for belief (i.e. no clear and
distinct perception).

It is Descartes' theory of judgement which allows him to
employ the free will defence to explain away the evil of error.8 For
Descartes, judgement is the result of an interaction between
two different faculties: the will and the understanding. The
understanding proposes a proposition for our approval and then
the will assents to it or not as the case may be:

the will simply consists in our ability to do or not do something
(that is to affirm or deny, to pursue or avoid); or rather, it consists

---

8. For an illuminating account of Descartes' theory and its relationship to Augustin-
ian and Stoic views of judgement, see (Menn 1998: 307–18).
simply in the fact that when the intellect puts something forward for affirmation or denial or for pursuit or avoidance, our inclinations are such that we do not feel we are determined by any external force. (Descartes 1984: 40)

We act when the will leads us to make true a proposition proposed to us by the understanding; we believe when the will leads us to accept as true a proposition proposed to us by the understanding. So both belief and action are subject to the will.

This theory of judgement is implausible. In the practical case, we are able to choose among courses of action which the understanding presents as equally desirable; more controversially, we are able to choose a course of action even if the understanding presents it as less desirable than some alternative. But there is no analogue of either ability in the theoretical sphere. Belief or judgement are not subject to the will in the way Descartes appears to think (Owens 2000: Chapter 5). To use an ancient example, I won’t be able to form a view about whether the number of stars is odd just because the evidence is evenly balanced and I decide to form a view on the matter. I can assent to a proposition only where the understanding’s estimate of the evidence tells in its favour. So it is unclear what role is left for the will. God can’t pass the buck to us for all our errors just by observing that we freely chose our erroneous beliefs.

But Descartes needs his theory of judgement for reasons which have nothing to do with letting God off the hook. He, like most other Enlightenment philosophers (Hume excepted), is a firm adherent of two ideas: (a) each individual is responsible for the rationality of their beliefs and is at fault where their beliefs are unjustified and (b) such intellectual responsibility requires intellectual freedom, we can be held to account for our beliefs only in so far as they are under our control. Whether or not we are responsible for all the errors we commit, we certainly are responsible for those of our erroneous beliefs which are unjustified and the very idea of belief-justification requires the existence of intellectual freedom. The problem which Descartes grapples with in the Fourth Meditation is a problem for anyone who shares these two assumptions.

**Freedom and Certainty**

In the course of expounding his theory of error, Descartes forges a link between freedom and certainty. Speaking of a truth clearly
and distinctly perceived, Descartes says:

I could not but judge that something which I understood so clearly was true; but this was not because I was compelled to judge by an external force, but because a great light in the intellect was followed by a great inclination in the will, and thus the spontaneity and freedom of my belief was all the greater in proportion to my lack of indifference. (Descartes 1984: 41)

In this case, I feel no indifference because I have a conclusive reason: I could not be clearly and distinctly perceiving the truth of this proposition unless it were true. Aware that I have a conclusive reason, I adopt the belief in perfect freedom, exercising only liberty of spontaneity and not liberty of indifference. But if this is perfect freedom, how are we free to commit error?

Descartes wants to insist that we are responsible for our erroneous convictions. I commit errors in cases where I form a belief even though ‘I do not perceive the truth with sufficient clarity and distinctness’ (Descartes 1984: 41). And I commit such errors freely because (given Descartes’ theory of judgement) I have the power to choose a belief even where the evidence alone should leave me indifferent. No doubt feeling the tension between this statement and the idea that true freedom requires the absence of such indifference, Descartes adds that ‘the indifference I feel when there is no reason pushing me in one direction rather than another is the lowest grade of freedom’ (Descartes 1984: 40). I am accountable for error because I am misusing my free will when I affirm something on the basis of inconclusive evidence.

There is an obvious conflict in Descartes thinking here. On the one hand, he says a fully rational person could not get themselves to assent to a proposition just by reflecting on inconclusive evidence for it; rather they would remain indifferent and suspend judgement:

this indifference does not merely apply to cases where the intellect is wholly ignorant, but extends in general to every case where the intellect does not have sufficiently clear knowledge at the time when the will deliberates. For although probable conjectures may pull me in one direction, the mere knowledge that they are simply conjectures, and not certain and indubitable reasons, is itself quite enough to push my assent the other way. (Descartes 1984: 41)
Reason alone would not enable us to motivate belief in p by reflection on inconclusive evidence for p, even when the balance of inconclusive evidence tips firmly in the proposition’s favour. So, Descartes adds, no one could assent to such a proposition in perfect freedom. But Descartes also maintains that by exercising the will’s liberty of indifference, we can come down in favour of p and should be held to account if we do. So we must be free to believe in the face of uncertainty after all.

Can we rescue Descartes from this difficulty by dropping first his theory of judgement and second the idea that justified belief requires justified certainty? Suppose Descartes were to agree that judgement does not involve an act of will, that we control our beliefs by means of reflection on inconclusive evidence rather than by means of the will, that we control our beliefs where our judgement of the balance of evidence for and against a given proposition can determine what we believe. Perhaps this would be enough to ensure that people are responsible for their unjustified errors at least (though God is left to carry the can for the rest).

My analysis of Cartesian scepticism and my account of Descartes’ conception of reason gives such reflective judgement a key role. So the notion of reflective control, even when stripped of its association with the will, should fit snugly into Descartes’ system. But having excised Descartes’ theory of judgement from the rest of his thought, we have yet to dispose of his demand for certainty. As we have seen, the Fourth Meditation links freedom with certainty (or lack of indifference) and it is a link which survives the rejection of Descartes’ will-based theory of judgement.

Reflection and Certainty

In the Fourth Meditation Descartes gives us rather good grounds for thinking that rational people cannot motivate belief by reflection on inconclusive evidence alone. It is fairly clear what is supposed to be troubling the believer confronted by inconclusive evidence which favours p but who finds himself ‘indifferent’ between p and not-p: he could get himself to regard this inconclusive evidence as sufficient for belief in p only by bringing to mind pragmatic considerations (Owens 2000: Chapter 2). To determine whether a given level of evidence is sufficient to justify
belief, he must contemplate the importance of the issue, the cognitive resources he can afford to devote to resolving it, and so forth.

When taking a practical decision, we often remind ourselves of the pragmatic constraints on the process of deliberation in an effort to force a decision—"I must settle now which train to catch and then get on with thinking about other things"—and reflection on such considerations does motivate decision in a rational person. But our rationality alone won't guarantee that we can get ourselves to believe something simply by judging that the evidence favouring it is sufficient to establish its truth, given the importance of the issue etc. Trying to make up my mind about the guilt of the man before me, I can reflect that (given the time constraints) I must now deliver a verdict and if I am rational, this reflection will make me announce a verdict. But my rationality alone can't guarantee that such reflections will issue in a belief on this subject.

It looks as if a rational believer, as such, can't get himself to believe that p simply by judging that the balance of inconclusive evidence favours p. The only apparent cure for the impotence of reflection is to strip away the pragmatic constraints on belief and seek to ground our convictions in evidence alone, thereby securing our intellectual freedom, the foundation of epistemic responsibility. This is exactly what led Descartes to think that justified belief requires possession of a conclusive reason. If we allow anything less than conclusive grounds to motivate the formation of belief then pragmatic considerations must be allowed to determine what level of inconclusive evidence is sufficient; and once they are permitted to intrude, reflective control over belief is lost. That, I suggest, is the root of the Cartesian idea that we are fully free in forming a belief only when we are certain.

My reading of Descartes explains why he draws such a big distinction between what is required for knowledge of what we should do and what is required for knowledge tout court:

As far as the conduct of life is concerned, I am very far from thinking that one should assent only to what is clearly perceived. On the contrary, I do not think that we should always wait even for probable truths; from time to time we will have to choose one of many alternatives about which we have no knowledge.

(Descartes 1984: 106)
But why? If both practical and theoretical judgement involve the will’s assenting (or not) to the deliverances of the understanding, are they not on a par? Why shouldn’t practical judgement require ideas as clear and distinct as theoretical judgement? The answer is that though action is under our reflective control whether or not we have conclusive reasons for our deeds, only conclusive reasons can give us reflective control over belief.  

For Descartes, certainty is a control issue and what scepticism exposes is the limits and the presuppositions of rational control. Having noted (in the passage quoted above) that inconclusive evidence leaves the rational believer indifferent as to what he ought to believe, Descartes completes the passage by linking this fact with the psychological efficacy of the sceptical doubt:

My experience in the last few days confirms this: the mere fact that I found that all my previous beliefs were in some sense open to doubt was enough to turn my absolutely confident belief in their truth into the supposition that they were wholly false. (Descartes 1984: 41)

Here Descartes is alluding to a passage in the *First Meditation* where, in order to rid himself of habitual beliefs which creep back whenever his guard is lowered, he decides to accept the truth of the sceptical hypothesis:

I shall never get out of the habit of confidently assenting to these opinions, so long as I suppose them to be what in fact they are, namely highly probable opinions—opinions which, despite the fact that they are in some sense doubtful, as has just been shown, it is still much more reasonable to believe than to deny. In view of this, I think it would be a good plan to turn my will in completely the opposite direction and deceive myself, by pretending for a time that these former opinions are utterly false and imaginary. (Descartes 1984:15)

Gassendi refused to believe that Descartes could do this and Gassendi is surely right that we cannot convince ourselves of the truth of a sceptical hypothesis by a simple act of will (Descartes 1984:180). But Descartes’ deeper point is correct: I may judge

---

9. My account of Descartes’ obsession with certainty is at variance with those to be found in the contemporary scholarly literature. I discuss some of these accounts in (Owens 2000: Chapter 4).
that my former opinions are highly probable but this judgement will not ensure that I retain those beliefs so long as the possibility of error remains in view. A rational believer who sees that the evidence is inconclusive will have an open mind about what he ought to believe. If I continue with my old beliefs, this is only because of the force of unreflective habit, a cognitive inertia which is the enemy of rational control. Descartes may be right about this even if he is wrong to suppose that this epistemic indifference can be resolved by an act of will.

To sum up, both Descartes and Hume wanted to know whether belief was subject to reason and each philosopher addressed this issue by asking whether we could control our beliefs through reflection on the quality of our reasons for them. Lately, their concerns have been buried under a host of semantic and metaphysical questions about the coherence of the sceptical hypotheses. I don’t deny that these questions are deep and interesting but Cartesian scepticism raises other profound issues. In particular, it should make us wonder whether reason really does require some form of intellectual freedom, whether epistemic rationality and responsibility are present only where our beliefs are under the control of reflection. Perhaps this assumption is just false. Perhaps that is the lesson of Cartesian scepticism.

BIBLIOGRAPHY

10. This assumption about freedom and responsibility is clearly present in Descartes’ ethical thought. See The Passions of the Soul (Descartes 1985: 384), a work whose Stoicism ought to be more central to the interpretation of Descartes’ philosophy.

11. Many thanks to Chris Hookway, Robert Stern, Michael Martin and Robert Hopkins for their comments on an earlier draft of this paper.