

Hume's Sceptical Texts 2: Scepticism with Regard to Reason (*Treatise* 1.4.1)

2.1 The argument of *Treatise* 1.4.1

The argument goes in two stages:¹

(a) The Uncertainty Argument starts by observing that we are fallible even in performing mathematical calculations; hence it is rational to be less than completely certain even in these cases, and accordingly “all knowledge degenerates into probability” (*T* 1.4.1). Supporting evidence comes from the practice of mathematicians in checking their work and getting others to check it also (*T* 1.4.2). And Hume then provides a (questionable) Sorites argument – a sort of “slippery slope” – to argue that such uncertainty must even extend to very simple mathematics (*T* 1.4.3).²

(b) The Regress Argument claims that “we are oblig’d by our reason”, whenever we make any uncertain judgment, to make a further judgement assessing the extent of that uncertainty, and to take this into account, thus undermining further our confidence in the original proposition. But since this further judgement is itself uncertain, a similar obligation requires us to adjust this by making yet another judgement about its own uncertainty, and so on. We are trapped in a regress, which according to Hume should eventually leave “nothing of the original probability”, so that “all the rules of logic require a continual diminution, and at last a total extinction of belief and evidence” (*T* 1.4.1.6).

2.2 Applying the Probability of Causes

Here is how the argument begins:

“In all demonstrative sciences the rules are certain and infallible; but when we apply them, our fallible and uncertain faculties are very apt to depart from them, and fall into error. We must, therefore, in every reasoning form a new judgment, as a check or controul on our first judgment or belief; and must enlarge our view to comprehend a kind of history of all the instances, wherein our understanding has deceiv’d us, compar’d with those, wherein its testimony was just and true. Our reason must be consider’d as a kind of cause, of which truth is the natural effect; but such-a-one as by the irruption of other causes, and by the inconstancy of our mental powers, may frequently be prevented. By this means all knowledge degenerates into probability; and this probability is greater or less, according to our experience of the veracity or deceitfulness of our understanding, and according to the simplicity or intricacy of the question.” (*T* 1.4.1)

In saying “Our reason must be consider’d as a kind of cause”, Hume is clearly alluding to his method of “probability of causes” (explained in *Treatise* 1.3.12), which recommends making inferences according to experienced frequencies. Accordingly, we are to consider “a kind of history of all the instances” in which we have made similar mathematical calculations before – our track record of success and failure – and base our confidence of success in such calculations on that track record. Note also Hume’s recognition that we might need to modify our confidence “according to the simplicity or intricacy of the question”, since we might (for

¹ Much of this is based on https://davidhume.org/scholarship/papers/millican/2018_Hume's_Pivotal_Argument.pdf recently published in *Hume Studies*, which is a detailed discussion of the argument and its significance.

² “Now as none will maintain, that our assurance in a long numeration exceeds probability, I may safely affirm, that there scarce is any proposition concerning numbers, of which we can have a fuller security. For ‘tis easily possible, by gradually diminishing the numbers, to reduce the longest series of addition to the most simple question, which can be form’d, to an addition of two single numbers; and upon this supposition we shall find it impracticable to shew the precise limits of knowledge and of probability, or discover that particular number, at which the one ends and the other begins. ... if any single addition were certain, every one wou’d be so, and consequently the whole or total sum; unless the whole can be different from all its parts.” (*T* 1.4.1.3). This argument is dubious because “the whole” *can* apparently be relevantly “different from all its parts” if all the parts are so simple as to be self-evident, but stringing lots of them together to make a long calculation introduces complexity and the possibility of error.

example) have a 99% track record of success in simple calculations, and only 80% in more complex calculations. All this seems like good common sense.

2.3 A dubious regress

Although initially focused on *demonstrative* mathematical reasoning, Hume takes a similar point – about the imperfection of our own faculty of reason or understanding – to apply to probable reasoning:

“In every judgment, which we can form concerning probability, as well as concerning knowledge, we ought always to correct the first judgment, deriv’d from the nature of the object, by another judgment, deriv’d from the nature of the understanding. ... Here then arises a new species of probability to correct and regulate the first, and fix its just standard and proportion. As demonstration is subject to the controul of probability, so is probability liable to a new correction by a reflex act of the mind, wherein the nature of our understanding, and our reasoning from the first probability become our objects.

But then, since any such correction itself involves a judgement of probability, a regress beckons:

Having thus found in every probability, beside the original uncertainty inherent in the subject, a new uncertainty deriv’d from the weakness of that faculty, which judges, and having adjusted these two together, we are oblig’d by our reason to add a new doubt deriv’d from the possibility of error in the estimation we make of the truth and fidelity of our faculties. This is a doubt, which immediately occurs to us, and of which, if we wou’d closely pursue our reason, we cannot avoid giving a decision. But this decision, tho’ it shou’d be favourable to our preceeding judgment, being founded only on probability, must weaken still further our first evidence, and must itself be weaken’d 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. No finite object can subsist under a decrease repeated *in infinitum*; and even the vastest quantity, which can enter into human imagination, must in this manner be reduc’d to nothing. Let our first belief be never so strong, it must infallibly perish by passing thro’ so many new examinations, of which each diminishes somewhat of its force and vigour. When I reflect on the natural fallibility of my judgment, I have less confidence in my opinions, than when I only consider the objects concerning which I reason; and when I proceed still farther, to turn the scrutiny against every successive estimation I make of my faculties, all the rules of logic require a continual diminution, and at last a total extinction of belief and evidence.” (T 1.4.1.6)

That is the entirety of the Regress Argument, claiming confidently (but without supporting discussion) that “we are oblig’d by our reason” to add a third doubt to the “original uncertainty inherent in the subject” and the “new uncertainty” arising from our imperfect track record, then “a fourth doubt of the same kind, and so on *in infinitum*”. Hume also assumes – again without any argument – that this regress will inevitably “require a continual diminution” in the probability of the original judgement, “and at last a total extinction of belief and evidence”. The most significant objections are these:

- One standard objection (stressed by Thomas Reid and more recently by D. G. C. MacNabb) is that repeated reflection might lead us to have *greater* confidence in our earlier judgements rather than *less*.
- More fundamentally (see §6 of the paper in note 1 above), Hume has not given any good reason for moving to higher and higher levels of reflection. My first level reasoning – e.g. about a quadratic equation – provides me with a *numerical answer*, and if I want to check that answer, I need to do *more first level reasoning*. Second level reasoning – e.g. checking my track record at solving quadratic equations – provides me with a *confidence level*, which may be useful for purchasing insurance (if the answer matters financially and insurance is available), but does not help in solving the equation. Third level reasoning would involve inductively assessing *how good I am at checking my mathematical track record*, and fourth level reasoning would involve inductively assessing *how good I am at assessing how good I am at checking my mathematical track record*. But these are pointless, because I have no history of doing these things on which to base such inductive assessment, and even if I did, they have no realistic prospect of *changing my solution, or even my confidence level in my solution*. Moreover, such higher-level reflection cannot

be justified by appeal to the “probability of causes”, *because the track record that matters when assessing my chance of mathematical success is my history of success and failure with mathematics* (which is something known from my memory and records – the “history of all the instances ...”).

- The proposed method runs contrary both to Hume’s own “probability of causes” (T 1.3.12) and to his advocacy of “general rules” (T 1.3.13.11) such as the “rules by which to judge of causes and effects” (T 1.3.15) whereby we are supposed to refine our causal judgments. Hume starts T 1.4.1 by saying that we should consider “reason as a kind of cause” in assessing its reliability, but then we can also apply the same approach to considering his high-level reflective method of T 1.4.1.6. And if we do this, it turns out to be empirically a hopeless method, because it leads us to “total extinction of belief and evidence” even in cases where our track record of success is 99% or more.

2.4 Why the Regress Argument does not undermine our beliefs

Hume says that neither he nor anyone can actually adopt the scepticism implied by his argument:

“Shou’d it here be ask’d me, whether I sincerely assent to this argument, ... and whether I be really one of those sceptics, who hold that all is uncertain, and that our judgment is not in any thing possest of any measures of truth and falshood; I shou’d reply, that ... neither I, nor any other person was ever sincerely and constantly of that opinion. Nature, by an absolute and uncontrollable necessity has determin’d us to judge as well as to breathe and feel; nor can we any more forbear viewing certain objects in a stronger and fuller light, upon account of their customary connexion with a present impression, than we can hinder ourselves from thinking as long as we are awake, or seeing the surrounding bodies, when we turn our eyes towards them in broad sunshine. Whoever has taken the pains to refute the cavils of this *total* scepticism, has really disputed without an antagonist, and endeavour’d by arguments to establish a faculty, which nature has antecedently implanted in the mind, and render’d unavoidable.” (T 1.4.1.7)

His intention in presenting the argument, he says, is to support his theory of [inductive] belief:

“is only to make the reader sensible of the truth of my hypothesis, *that all our reasonings concerning causes and effects are deriv’d from nothing but custom; and that belief is more properly an act of the sensitive, than of the cogitative part of our natures*. I have here prov’d, that the very same principles, which make us form a decision upon any subject, and correct that decision by the consideration of our genius and capacity, and of the situation of our mind, when we examin’d that subject; I say, I have prov’d, that these same principles, when carry’d farther, and apply’d to every new reflex judgment, must, by continually diminishing the original evidence, at last reduce it to nothing, and utterly subvert all belief and opinion. If belief ... were a simple act of the thought, without any peculiar manner of conception, or the addition of a force and vivacity, it must infallibly destroy itself, and in every case terminate in a total suspense of judgment. But as experience will sufficiently convince any one, who thinks it worth while to try, that tho’ he can find no error in the foregoing arguments,³ yet he still continues to believe, and think, and reason as usual, he may safely conclude, that his reasoning and belief is some sensation or peculiar manner of conception, which ‘tis impossible for mere ideas and reflections to destroy.” (T 1.4.1.8)

He also has a particular theory as to why the argument does not convince us:

“after the first and second decision; as the action of the mind becomes forc’d and unnatural, and the ideas faint and obscure; ... Where the mind reaches not its objects with easiness and facility, the same principles have not the same effect as in a more natural conception of the ideas; ... The attention is on the stretch: The posture of the mind is uneasy; and the spirits being diverted from their natural course, are not govern’d in their movements by the same laws, at least not to the same degree, as when they flow in their usual channel. ... No wonder, then, the conviction, which arises from a subtile reasoning, diminishes in proportion to the efforts, which the imagination makes to enter into the reasoning, and to conceive it in

³ In this paragraph (and the underlined parts in particular), Hume clearly commits himself to the theoretical correctness of the Regress Argument. Others are at T 1.4.1.6 (“all the rules of logic”), T 1.4.2.57 (“‘Tis impossible ...”) and 1.4.7.7 (see §6.2 below).

all its parts. Belief, being a lively conception, can never be entire, where it is not founded on something natural and easy." (T 1.4.1.10)

In other words, we are unable to focus sufficiently on a complex and abstruse argument, and hence it fails to convince us in such a way as to undermine our beliefs.

2.5 A Change of Attitude in the First Enquiry?

It is striking that the argument of "Scepticism with regard to reason" is entirely absent from the first *Enquiry*, and several pieces of evidence suggest that Hume may have come to recognise its problematic nature:

- Hume's discussions in the *Enquiry* are illustrated with many more examples than in the *Treatise*.⁴ But it is very hard to spell out an example in which Hume's Regress Argument of *Treatise* 1.4.1.6 makes sense in probabilistic terms beyond the first couple of iterations, so it seems likely that he would have recognised its difficulties if he had attempted to do so.
- Without its probabilistic aspect, the argument apparently reduces to the ancient "sceptical mode of infinite regress" – presumably one of the "trite topics" of which *E* 12.6 seems to be dismissive.
- The rejection of extreme "antecedent scepticism" at *E* 12.3 appears to reject the sceptical claim that we are under an obligation to justify our faculties before relying on them, and this rejection counts against the demand for iterative checking on which the Regress Argument of *T* 1.4.1 hinges.
- The next paragraph, *E* 12.4, advocates careful checking of our calculations and other reasonings, but not by iterating to progressively higher levels in the manner of *T* 1.4.1.6. Instead, we should check mathematical calculations by *reviewing* and *examining* them, which is exactly what critics of the Regress Argument such as Thomas Reid would recommend.
- At *E* 12.18, Hume says that "The chief objection against all *abstract* reasonings is derived from the ideas of space and time," which would not be the case if the Regress Argument worked.

If this is correct, then it is possible that recognition of the failure of his Regress Argument would have brought about a profound change in Hume's sceptical attitude, because it is this argument that provokes the "dangerous dilemma" that causes major difficulties in *Treatise* 1.4.7. We'll come to this in a later discussion of Hume's Sceptical Texts.

⁴ Comparing his two discussions "Of the idea of necessary connexion", for instance, examples appear in *T* 1.3.14 only briefly, and in just three paragraphs (18, 23, 27), compared with twelve paragraphs in *Enquiry* 7 (6, 8, 9, 12, 13, 14, 16, 19, 21, 28, 29, 30).