

# Seven Theses Concerning Hume's Skepticism with Regard to Reason

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## Abstract

There is a controversy concerning whether to give Section 1.4.1 of Hume's *Treatise of Human Nature* a skeptical or naturalistic reading. I divide the overall interpretation of this section into seven smaller interpretative theses, none of which alone determine either a skeptical or naturalistic reading, but which together better support what has been called the naturalistic interpretation.

How tedious to find oneself entering into a battle that is already raging, in which corpses from both sides lie strewn across the battlefield, with one facing the dreary prospect either of littering the ground with still more corpses or of becoming another such corpse oneself. Yet some battles must be fought, one might think, due to the great importance of the issues over which they are fought, issues so consequential that one's reputation or even one's life would be a small price to pay to further some great and noble cause. Indeed, what cause could be greater or nobler than an interpretive issue in the history of philosophy?

The issue before me is the interpretation of Section 1.4.1 of Hume's *Treatise of Human Nature*, entitled "Of scepticism with regard to reason". The main controversy most recently, it seems, centers upon whether to give this section a naturalistic or a skeptical reading as part of a broader reading of the *Treatise* as a whole. Robert Fogelin has characterized one of Hume's arguments in this section as a morass (Fogelin, p. 16), and the critical literature attempting to navigate this morass seems itself to have devolved into a morass. I cannot pretend to do justice to every interpretive argument that has been offered thus far in recent years. Rather, my strategy in this paper is to refocus the debate around seven definite interpretive theses, none of which alone I think demands a naturalistic or skeptical reading of Hume in this section, though depending upon which theses can ultimately be maintained and which will need to be revised, a particular interpretation will seem to emerge from these theses.

In the interests of full disclosure, I will mention in advance that in general I am far more interested in skepticism than in naturalism. Yet my aim in this paper is to find skepticism in Hume just where it occurs, and nowhere

else. Accordingly, the conclusion from the combination of the seven theses I will present and defend seems best to support what has been presented as a naturalistic interpretation of Section 1.4.1 of the *Treatise*, so it seems that any skepticism in Hume must be found elsewhere.

Section 1.4.1 of the *Treatise* contains three main arguments. The first is designed to show that “all knowledge resolves itself into probability” (T 1.4.1.4; SBN 181), based upon a consideration of the uncertainty involved in adding large numbers together. The second argument, which I will call the “diminution argument”, aims to show that reasoning must ultimately reduce the probability of its own activities to zero, given the realization of the fallibility of the application of the principles of reason. The third argument, which I will call the “complexity argument”, shows how belief can occur in the face of the diminution argument, based upon the mind’s inability to maintain attention throughout a long and complex series of steps. I will focus on the second and third arguments in this paper.

What I will continue to call the “naturalistic interpretation” for the sake of convenience, even though it may not be a strictly accurate characterization, holds that the diminution argument is a *reductio ad absurdum* argument intended to show the inadequacy of an “intellectualist model of the rationally reflective epistemic agent” (Morris, p. 56). The complexity argument, however, shows how Hume’s conception of the role of reason in the production of belief does not undermine itself in the same way as the intellectualist model. By contrast, the skeptical reading holds that the diminution argument is intended to be maintained as a skeptical argument deployable at any time, not merely within the scope of a *reductio ad absurdum* argument, and the complexity argument shows how one retains any belief at all despite the looming threat of the skeptical diminution argument.

The main difference in the interpretations, therefore, seems to be the scope of the diminution and complexity arguments. Under the naturalistic interpretation, the diminution argument applies only to the model of belief formation that is under attack in the *reductio ad absurdum* argument, while the complexity argument applies only to Hume’s own model of belief formation. Under the skeptical interpretation, however, both the diminution and complexity arguments can at least in principle be applied to any conception of belief formation. I hope in the following seven theses to explore the details on which a view of the scope of these arguments may be based.

## **1 The diminution argument is at least intended by Hume to be part of a *reductio ad absurdum* argument.**

After presenting the diminution argument, Hume seems to disavow the results of the argument, which would otherwise seem to make him a total skeptic. Instead

he claims “neither I, nor any other person was ever sincerely and constantly of that opinion” (T 1.4.1.7; SBN 183), namely the opinion of total skepticism, which raises the question why Hume would present an argument whose conclusion he does not maintain. He answers that it “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*” (1.4.1.8; SBN 183, emphasis in the original). This pattern of discussion seems to embody the structure of a *reductio ad absurdum* argument, just as Morris argues (p. 56), since Hume presents an argument that seems to lead to a conclusion that he denies, after which he indicates what he takes to be the faulty assumption in the argument. Indeed, Hume continues to state what appears to be a recapitulation of the *reductio* argument:

If belief, therefore, 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, 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; SBN 184)

Even a critic of the naturalistic reading such as Kevin Meeker concedes that the diminution argument at least superficially has the structure of a *reductio*, though he claims that this structure “does not automatically rule out a sceptical reading” (Meeker, p. 237). Some commentators have sought textual evidence immediately after the diminution argument to show that the *reductio* structure is merely superficial and that Hume intends the argument not to be restricted to a view of reasoning and belief that he rejects.

David Owen, for example, points to a passage following Hume’s alleged conclusion under the *reductio* interpretation in which Hume seems not to restrict the scope of his argument when he refers to “the very same principles” (T 1.4.1.8; SBN 183) of reason that diminish evidence to zero. According to Owen, “there is no suggestion that the reasoning itself, or some general account of reasoning, is faulty” (Owen, p. 203). I may agree with Owen’s general point here, but it seems to me that he misses the mark. Even if reasoning is not faulty, Hume’s immediate target in the supposed *reductio* seems not to be the robustness of some conception of reason, but rather the role of reason in the formation of belief. When Hume seems to reiterate his *reductio*, the assumption he posits is “If belief, therefore, were a simple act of the thought, without any peculiar manner of conception, or the addition of a force and vivacity” (T 1.4.1.8; SBN 184), not an assumption that reason was of a particular nature. On the basis of Owen’s remarks, though, I may indeed wonder why Hume seems to think that

his alleged *reductio* supports both his hypothesis that reasoning with regard to cause and effect are a matter of custom as well as the hypothesis that belief owes more to sensation than to cognition (T 1.4.1.8; SBN 183), whereas the *reductio* proper seems to support only the second hypothesis. However, it seems to me that Hume may hold that the second of the two hypotheses, concerning belief, depends critically on the first, concerning reasoning about cause and effect, and indeed he seems to make this connection in the statement he makes at the beginning of the section, in which he claims “Our reason must be consider’d as a kind of cause, of which truth is the natural effect” (T 1.4.1.1; SBN 180). If the second hypothesis is supported by the *reductio*, then it seems as though the first hypothesis on which the second depends is also supported, thus justifying Hume’s presentation of the two hypotheses as one. Whether Hume is correct about the dependency relations between the two hypotheses may be questioned, as well as whether I am correct in interpreting Hume to be holding such a dependency relation, but the supposition that Hume held the one hypothesis to be dependent on the other would help explain how Hume can refer to “the very same principles” of reason when the alleged *reductio* argument only immediately affects the hypothesis concerning belief formation.

Owen and Meeker both point to another passage following the alleged *reductio*, already quoted, to argue against restricting the scope of the diminution argument (Owen, p. 203; Meeker, p. 235). There Hume claims that one “can find no error in the foregoing arguments” (T 1.4.1.8, p. 184). According to Owen, “these are not the words of someone who has just put forward a *reductio* of a discredited theory of reason” (p. 203), and Meeker claims “if this argument is simply an attack on the rationalist, then there obviously *is* an error: namely, adopting the rationalist model of the understanding” (p. 235, emphasis in the original). However, it seems to me that the passage cited needs to be interpreted as falling within the scope of a conditional, namely “If belief . . . were a simple act of the thought . . .” (T 1.4.1.8; SBN 184), meaning that there is no error in the diminution argument under the assumption that belief were a simple act of thought, which is what enables the conclusion of his *reductio*, rather than a rejection of the argument due to internal errors on that assumption. There may be an error in the argument on some different assumption, and I will argue later that Hume demonstrates what such an error might be on the assumption of his own conception of belief formation within the complexity argument. So it does not seem odd for Hume to claim that there is no error in the diminution argument interpreted as a *reductio*, if Hume is in fact recapitulating the diminution argument within the scope of an assumption that the *reductio* will ultimately deny.

One may further wonder why, if the diminution argument forms part of a *reductio*, Hume did not make this clear at the beginning of the argument, rather than presenting the argument as though it were leading to conclusions that he supported. This may simply be part of Hume’s peculiar stylistic and rhetorical strategy. He may have wanted to put the reader into a state of panic by presenting what appears to be a solid argument leading to such distasteful conclusions so that the reader would be more willing to accept the conclusion that Hume

ultimately offers, namely that the argument depends upon an assumption that needs to be rejected. As I will suggest later, given Hume’s own notion of belief as relying essentially on a factor of vivacity, he may be manipulating the reader’s own vivacity here in order to create beliefs in the reader that match his own.

It therefore seems to me that the explicit textual evidence that Hume intends the diminution argument to be part of a *reductio* argument is stronger than the evidence that the *reductio* structure is merely apparent, though I have certainly not here addressed all the evidence that Owen and Meeker present. I am not in a position to claim definitively that Hume’s *reductio* works, but I do not think that the task of interpreting Hume in this section is furthered by envisioning Hume’s intentions otherwise. Still, even if the *reductio* interpretation is adopted, that alone does not resolve the issue with regard to a naturalistic or skeptical reading of Section 1.4.1 as a whole. Consequently, I proceed to a consideration of my remaining theses.

## **2 The fallibility that drives the iterative process within the diminution argument functions not against the subject’s assignment of probability but against the subject’s repeated verifications of the original calculation and of those verifications themselves.**

A number of commentators on both sides of the controversy over a naturalistic or skeptical interpretation seem to hold that the critical element of fallibility in the diminution argument lies in the evaluation of the probability that the subject assigns with regard to the subject’s calculation, namely that the subject may be wrong in the appraisal of the probability of the calculation. Thus Fogelin writes, “Then, following Hume’s instructions, we reflect upon our ability to make such probability assignments” (p. 18). Mikael Karlsson claims, “The argument can only work if we assume that the errors which we make in placing a given degree of confidence in our probable judgements [sic] are more often than not on the side of over-confidence” (Karlsson, p. 127). Michael Lynch picks upon Karlsson’s suggestion: “There is just as much reason to think that I initially gave P ‘too much’ confidence as there is to think I gave it ‘too little’ ” (Lynch, p. 92).

I do not think that this interpretation fits well with Hume’s presentation of the diminution argument. “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” (T 1.4.1.5; SBN 181–2). This demand derives from a realization of the fallibility of judgment. I correct my judgments in an effort to confirm them. Note that what is corrected is the first

judgment about the object, not my assignment of probability to the judgment, and what corrects the first judgment is another judgment, this time about my understanding, not necessarily about the particular probability that is assigned.

In Hume's later restatement of the diminution argument, in preparation for the complexity argument, he makes it clear that what is re-examined in the first confirmation step at least is the first judgment itself, not the appraisal of probability assigned to the first judgment: "I suppose, that afterwards I examine my judgment itself, and observing that 'tis sometime just and sometimes erroneous, I consider it as regulated by contrary principle or causes, of which some lead to truth, and some to error" (T 1.4.1.10; SBN 184–5). However, on the subsequent steps, it may be wondered whether it is the appraisal of my assignment of probability to the original judgment or the second judgment concerning the first that is subject to iterative scrutiny. The text is not entirely unambiguous, for example:

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 should be favourable to our preceding judgment, being founded only on probability, must weaken still farther our first evidence, and must itself be weaken'd by a fourth doubt of the same kind, and so on *in infinitum*. . . . (T 1.4.1.6; SBN 182)

Is the subsequent decision an appraisal of the assignment of probability embodied by the doubt, or it is an appraisal of the appraisal of the original judgment and so forth? I think the text tends to support the latter interpretation, in which the recognition of my fallibility prompts me to confirm my original judgment with another judgment concerning the exercise of my faculties. Did I make a mistake or did I not? Let me confirm my judgment. Yet my confirmation itself is another judgment in which my fallibility may be manifest, even if this confirmation supports my original judgment, so yet another confirmation is demanded and so forth. The need for continued confirmations indicates merely that each prior confirmation, which contributes as evidence to the original judgment, is only a probability, each subsequent probability diminishing the probability of the prior confirmation until the confirmation immediately following the original judgment has been reduced in probability to zero, thus undercutting the evidence for the original judgment and requiring a suspension of belief. This is how I interpret Hume's diminution argument. The diminution of probability he discusses can be understood best in terms of undermining an entire chain of evidence.

In support of this interpretation, I appeal to the principle of charity against the contrary reading. If interpreting the kind of fallibility that appears in the diminution argument as applying to the assignment of probability leads to the claim that Hume's conclusions do not follow (Karlsson, p. 127) or to the claim that Hume's argument requires a complex reinterpretation in order for it to resist criticism (Lynch, p. 94), then perhaps that interpretation is not what Hume had in mind. I think that the interpretation of fallibility as applying to

subsequent confirmation operations provides a chance for Hume's argument to succeed without much clever tinkering.

It may be wondered whether there is any significant difference in interpreting the iteration as ranging over the assignment of probabilities or over successive confirmations, since each confirmation may be seen likewise as establishing a certain probability, and the evaluation of the assignment of probability may be seen in turn as another confirmation. The critical difference between the two is that the interpretation of the iteration over confirmations does not require the recognition of any particular assignment of probability at all, whereas an evaluation of my assignment of probability seems to demand the recognition of a particular probability. The recognition of my fallibility does not entail that I recognize some definite probability value, say something like a value of 0.8033, where a value of 1 represents perfect certainty. Rather the recognition of fallibility with regard to my confirmation efforts requires only that I recognize the probability to be something less than certain, not some specific degree of uncertainty. On such grounds, I can proceed to perform subsequent confirmations without any definite appraisal of probability. This seems to be an additional merit of the interpretation of iteration over confirmations that the interpretation of iteration over assignment of probabilities seems to lack. Consequently, it makes interpretations based on the consideration of whether I have assigned my probability too high or too low seem idle, since the argument seems to work under another interpretation without demanding that anyone ever assign a particular probability value or level to a judgment.

One potential drawback to my preferred interpretation is that it seems to require a hierarchy of probabilities, each level of which remains isolated from the others, such that a diminution of probability at one level would not affect the probability at another level, as Fogelin has argued (p. 18). Subsequent interpreters following after Fogelin have labored long to save Hume from this potentially fatal criticism (see, for example, Lynch, pp. 90–96), so my suggestion here may appear to undo all that work. However, it seems to me that Fogelin's challenge may still be met under my preferred interpretation on the recognition that the hierarchy of probabilities is not the independent hierarchy demanded by the interpretation of iteration over assigned probabilities, but a hierarchy of confirmations in a dependency relation of evidence according to a standard epistemological sense of evidence, as I take Meeker to be arguing (pp. 224–7). If I undercut my evidence at a higher level, it undercuts the probability of that for which it serves as evidence, so given a chain of evidence, a weakening of evidence at any level will ultimately affect the base level judgment which was to be confirmed. Yet according to Hume's argument, there is no level of evidence here that is not weakened in this way, such that the cumulative effect of this weakening will ultimately reduce the evidence for the original judgment to nothing.

Whether Hume's conclusion that the probability of any judgment will be reduced to zero can be maintained on this evidential interpretation is a question I leave open in this paper. Thus the tenability of this thesis may ultimately rest on whether Hume's conclusion can in fact be met. Yet such a demonstration

would need to be careful about what assumptions Hume adopts in the argument, such as whether he adopts a particular conception of the role of reason in the production of belief, as considered in the previous thesis and again later, and what Hume means by probability in the diminution argument, as I will consider next.

### **3 If the diminution argument is a *reductio*, then probability in that argument cannot be construed solely in a Humean subjective manner.**

Hume characterizes probability earlier in the *Treatise* as “that evidence, which is still attended with uncertainty” (T 1.3.11.2; SBN 124). It seems tempting to use this conception of probability in reconstructing the diminution argument, and indeed in my own sketch of a reconstruction in the discussion of the previous thesis, I relied somewhat on the role that probabilities play as evidence in the argument. However, it seems to me that if the diminution argument is intended by Hume to be a *reductio* argument, he cannot rely solely on a subjective conception of probability in terms of uncertainty.

The problem is that if the diminution argument does depend critically on Hume’s own peculiar notion of probability, then the faulty assumption in the supposed *reductio* argument may not be the rationalist conception of the role of reason in belief formation, as Hume seems to argue, but it may be his notion of probability that is responsible for the absurdity in the conclusion. For Hume to persist in concluding that the rationalist conception of belief formation is the faulty premise under those circumstances would seem to beg the question somewhat against that rationalist conception by demanding that it be coherent with Hume’s conception of probability, rather than some other conception of probability that may be more congenial to it.

I am not absolutely certain that Hume in fact does not understand probability in the diminution argument according to his earlier characterization; however, it seems to me that he cannot do so and still proceed with a *reductio* argument, if indeed a *reductio* is his intention. This consideration may require a reformulation of the diminution argument, including possibly my own reconstruction above. However, it seems to me that it is possible to understand probability in the argument by emphasizing the role of evidence in the argument rather than the notion of uncertainty. In fact, I think that there is reason to think that Hume does understand probability in the diminution argument in terms of evidence, as I will suggest in the consideration of a later thesis when I address the issue of how many hypotheses Hume is entertaining in this section.



## 4 Hume’s diminution argument is intended to be descriptive not normative.

One peculiarity of Lynch’s reconstruction of the diminution argument is that he construes it as a normative argument. Note the conclusion of his preferred interpretation of the argument: “Hence I have no reason for thinking P as any more probably than any other belief, (including not-P) and thus, assuming that I recognize this, I *should not* believe P — I *should* withhold belief altogether” (p. 94, my emphasis). Lynch goes so far as to present the conclusion of an interpretation of the argument derived from Fogelin as normative as well: “Assuming that I recognize this fact, I *should* assign that probability to P straightaway, and hence *should not* believe that P” (p. 91, my emphasis). Fogelin himself does not seem to present the argument as a normative one, but of course Lynch claims that the interpretation he presents is merely “similar to the one presented by Robert Fogelin” (p. 91), not that he is presenting Fogelin’s interpretation faithfully.

If the diminution argument is indeed a *reductio*, then Hume cannot be presenting the argument as normative, since the absurdity would then only properly arise from a contradiction with another normative principle, such as that we should not reduce probability to zero in every belief. Not only does Hume not seem to offer any such normative statement in contradiction with the conclusion of the diminution argument, but such a normative statement would be very odd for Hume to make in this context, given his notorious later complaints about normative arguments based on descriptive statements (T 3.1.1.27; SBN 469). Rather his statements with regard to total skepticism that serve the role of contradiction under the *reductio* interpretation seem decidedly descriptive: “neither I, nor any other person was ever sincerely and constantly of that opinion” (T 1.4.1.7; SBN 183). It is not that no one should be such a skeptic, but that no one is.

However, since I intended this thesis to be independent of the thesis concerning whether the diminution argument is part of a *reductio*, I do not want to decide against the normativity of the argument solely on the ground that otherwise a *reductio* interpretation would fail. I note in passing, though, that in presenting his reconstruction of the diminution argument as normative, Lynch thereby takes up a strong position against a *reductio* interpretation (pp. 100–1).

Lynch himself offers no explanation of the normativity he sees in the diminution argument. Yet in reviewing the text of Hume’s conclusion of the diminution argument proper, regardless of whether it plays a role in a *reductio* or not, I can see some room for Lynch to make a normative interpretation. For example, in the sentence, “all the rules of logic require a continual diminution” (T 1.4.1.6; SBN 183), the word ‘require’ may be seen to have a normative force. Likewise, in the sentence, “If belief, therefore, were a simple act of the thought . . . it must infallibly destroy itself. . .” (T 1.4.1.8; SBN 184), Lynch may be reading the word ‘must’ as a normative claim, rather than as a claim of descriptive necessity. Yet these readings seem particularly stretched in my opinion, compared with a more

natural descriptive reading of these passages. Grammatically speaking, if there is normativity in the two passages, then it applies to the rules of logic in the first passage and to belief in the second, not to me, as Lynch's interpretation would have it. It could be argued that such normativity ultimately falls to me, given my acceptance of the rules of logic and my possession of beliefs; however, given such acceptance and possession, it is not clear that any further normativity is required. These statements seem simply to be making a descriptive claim of logical or nomological necessity, not any normative claim devolving upon me.

Still, Hume does start the diminution argument with a normative claim, namely that "we ought always to correct the first judgment . . . by another judgment" (T 1.4.1.5; SBN 181–2), so there may be no conflict with his notorious later complaint concerning the introduction of an 'ought' claim on the basis of prior 'is' claims (T 3.1.1.27; SBN 469). However, an argument beginning with a normative claim does not require a normative conclusion, since there may be factual consequences of normative claims if the normative principles cited are understood to be implemented, and Hume needs the normative principle in this case to be implemented in order for the diminution argument to proceed even one step. Thereafter, though, it is not clear that there is any need for introducing any normative consequences.

Consequently, I do not see much evidence for construing the diminution argument as normative rather than descriptive. Hume's conclusion seems clearly to be that probability does reduce to zero under the assumptions of the argument, whatever they turn out to be, not that one should assign a zero probability in any case of belief. Understanding the argument as fundamentally descriptive does not preclude a skeptical reading, of course, since if probability does in fact reduce to zero in every case, then it would seem to be the case that no one really does believe anything or at least does not have any grounds for believing anything. There may be room for normativity as a result of the diminution argument, but it seems to me that any such normativity must be found after the argument is recognized to be intended as a descriptive argument, as I will argue.

## **5 The complexity argument works only with a descriptive reading of the diminution argument.**

If the diminution argument is understood as a normative argument, then it seems to me that there is a problem with Hume's description within the complexity argument of how one avoids the situation described in the diminution argument. The problem is that if the diminution argument is taken to be normative, then the argument does not seem to be complex at all, but depends upon iterative steps that are the same each time. The mind does not seem to have a problem subsuming any number of steps of an argument so long as the steps are all the same, as Hume himself notes earlier:

But as most of these proofs are perfectly resembling, the mind runs easily along them, jumps from one part to another with facility, and forms but a confus'd and general notion of each link. By this means a long chain of argument, has as little effect in diminishing the original vivacity, as a much shorter wou'd have, if compos'd of parts, which were different from each other, and of which each requir'd a distinct consideration. (T 1.3.13.6; SBN 146)

Such is the case with the normative interpretation of the diminution argument. Since I know that each step is going to have the same results, then I do not actually need to perform each step, and I may simply save time by assigning the probability of zero to the original judgment without running through the entire series, which I see will be unending. In fact, once I have become aware of the diminution argument, I need not even bother performing the first step of the argument; I can merely assign a zero probability to every judgment. I do not need to consider any actual computations to appreciate the putatively normative force of the diminution argument, and if I do not consider the actual computations, the steps of the argument seem fairly simple. The iterative nature of the diminution argument saves it from being too complex to follow by subsuming a potential complexity in a simple repeated pattern.

The complexity arises when the mind must actually perform the iterative steps, since even though the steps have the same form, their application to each successive judgment is distinctly different, thereby stretching the mind not only to perform the additional calculation but also to keep track of the role of the particular calculation within the overall calculation. Only when the diminution argument is understood as descriptive does this complexity arise. Then according to Hume's account, on each successive step the mind gets stretched farther, such that the diminution of probability in each step has progressively less effect, until there is a point reached at which the lessening impact of each step cancels out the diminution of probability. So even if probability is diminished somewhat in the first few steps, the diminution eventually stops, leaving sufficient vivacity in the ideas to enable belief.

If someone insists upon a normative interpretation of the diminution argument, then it seems possible to understand the complexity argument as a direct refutation of the diminution argument. If the diminution argument under a normative interpretation applies to the complexity argument, then the diminution argument itself is complex, and therefore it fails because of its complexity. The overall conclusion of the section following the complexity argument would then be that one should not therefore assign a probability of zero to every judgment, contrary to what the diminution argument holds, since the inability of the mind to maintain attention through a long complex calculation will ultimately result in a point at which the diminution will cease. One need only wait for such a point in the calculation rather than jumping ahead and assigning a probability of zero as the normative interpretation of the argument suggested. However, in that case, how can anyone even follow a normative interpretation of the diminution argument? Why is the mind not stretched even in following

how the normative argument would go? Yet Lynch has provided three separate normative interpretations of the diminution argument, and I assume that he expects his readers to follow his interpretations. If the mind is not stretched so far such that it can follow the argument sufficiently to understand its normative force, how is it stretched too far to maintain belief? Furthermore, these argumentative consequences of such a normative interpretation seem hard to reconcile with the passage earlier quoted in which Hume claims to find “no error in the foregoing arguments” (T 1.4.1.8; SBN 184), as other commentators have pointed out, or at least no error if understood as a conditional argument as suggested earlier. It seems to me that if the diminution argument is understood to be normative, then the complexity argument serves as a refutation of the diminution argument. Yet if the complexity argument is a refutation of the diminution argument, then the complexity argument must show some error in the diminution argument, whether the diminution argument is understood as part of a *reductio* or not, and Hume claims that there is no error.

Consequently, it seems most consistent with Hume’s text to treat the complexity argument as applying to a descriptive interpretation of the diminution argument. It remains now to identify what assumptions the complexity argument adopts.

## **6 Hume recognizes two different hypotheses that may be tested against the diminution argument.**

Hume presents the diminution argument twice, a circumstance not much noted by other commentators. Directly after what appears to be the reiteration of the *reductio* argument, under that interpretation, and before the complexity argument, Hume restates the diminution argument in slightly different terms. The question that prompts this restatement in preparation for the complexity argument is “how it happens, even upon my hypothesis, that these arguments above-explain’d produce not a total suspense of judgment, and after what manner the mind ever retains a degree of assurance in any subject?” (T 1.4.1.9; SBN 184). If the hypothesis mentioned in this passage, which is the subject of concern in the complexity argument, is the same as the hypothesis used in the diminution argument, as some have argued (see for example Lynch, p. 97, pp. 100–1), then why would Hume feel compelled to restate the argument, which he had first presented just two pages earlier? Surely the reader will not have forgotten the argument in such a short space. Furthermore, if there were only one hypothesis under consideration in this section, why would Hume say “even on my hypothesis” in the passage quoted above? Why would he not simply ask how any belief can be sustained despite the diminution argument, which purportedly already contains his hypothesis? It seems to me rather that Hume is running the argument again on a different hypothesis concerning belief formation than in the first presentation, a hypothesis that specifically entails his

own conception of probability.

The language Hume uses in the second presentation is somewhat different, and it seems more reminiscent of Hume's account of probability and belief than the first presentation. Earlier Hume characterizes belief as follows: "Thus it appears that the *belief* or *assent*, which always attends the memory and senses, is nothing but the vivacity of those perceptions they present" (T 1.3.5.6; SBN 86). Whereas in the first presentation, Hume speaks blandly of evidence and probability, in the second, Hume seems to expound more on the specific activity of the mind in each step of the iterative process of the diminution argument: "... I feel a stronger and more forcible conception on the one side, than on the other. This strong conception forms my first decision" (T 1.4.1.9; SBN 184). This characterization seems to rely critically on Hume's own conceptions of belief and probability in a way that the characterization of the same steps in the first presentation did not. It is true that in the first presentation Hume does claim, "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" (T 1.4.1.6; SBN 183), but note the subtle difference in the attribution of force between the two presentations. In the first presentation, a belief has force and vigor, but in the second presentation the strong conception is the decision or belief. The difference here may be too subtle to be decisive, but it is sufficiently suggestive to my mind, in conjunction with the concern about the repetition of the diminution argument, to indicate that Hume intends to present the diminution argument again under his own hypothesis, whereas the first presentation depended upon a different hypothesis.

## **7 The complexity argument does not work on any conception of belief formation, but it does work on Hume's conception.**

If the diminution argument is not a *reductio*, then it seems that it will operate on any conception of belief formation, whether a purely rationalist conception or Hume's own conception. In that case, one might expect that the complexity argument likewise will operate on any conception of belief formation, but I claim that this latter view is mistaken. While the complexity argument does work with Hume's own conception of belief formation, it does not work with a purely rationalist conception.

Meeker cites a later passage in which Hume refers back to his diminution argument: "For I have already shewn, that the understanding, when it acts alone, and according to its most general principles, entirely subverts itself..." (T 1.4.7.7; SBN 267). Meeker's conclusion from this passage is as follows: "Once again, note that Hume admits that it is the *understanding alone* that yields these conclusions — not some silly rationalist view of the understanding" (p. 235, emphasis in the original). As I have argued above with regard to a similar point made by Owen, I suggest that this statement of Meeker's indicates that

he has missed the point of those like Morris who claim that the diminution argument is a *reductio*. It is not, as Meeker claims, a *reductio* against a particular model of the understanding; it is a *reductio* against a particular model of belief formation, as indicated in the earlier passage cited by Morris as the point of Hume's supposed *reductio*: "that belief is more properly an act of the sensitive, than of the cogitative part of our natures" (T 1.4.1.8; SBN 183). The rationalist conception of belief formation that Hume seems to target is a model in which cognition alone is sufficient to result in belief, whereas his own conception is that belief requires a measure of vivacity derived from one's sensitive nature in addition to pure cognition. This is what Hume means in the passage Meeker cites when he claims that the understanding alone subverts itself — he means the understanding alone without the support of a factor of vivacity.

This consideration is important when considering the specific hypothesis Hume evaluates in the complexity argument. Again, it seems to me that the hypothesis in question is not a model of the understanding as such, but a model of the role of cognition in belief formation. With this in mind, it seems clear that the complexity argument will not work with a rationalist conception of belief formation. If cognition alone is sufficient for belief formation, then the stretching of the mind, its uneasy posture, and the diversion of its spirits that Hume describes as part of the complexity argument (T 1.4.1.10; SBN 185) would not serve to yield belief despite the diminution argument, since these are factors which hinder cognition. If cognition is hindered in subsequent iterations of the diminution argument, then the mind will not have validated the original judgment. Consequently, it seems that it would require many fewer iterations of the diminution argument to reduce the probability of the original judgment to zero, according to the considerations that Hume presents in the diminution argument, such that no one will believe anything after all, so long as one is considering a purely rationalist conception of belief formation. None of the considerations presenting in the complexity argument would thus stop the diminution, but rather seem to encourage and hasten the diminution.

The complexity argument does work, however, on Hume's account of belief formation, since for Hume, vivacity plays the crucial role in belief formation rather than mere cognition. The stretching of the mind noted in the complexity argument does hinder subsequent cognitions, but it also reduces the effect of the diminution of probability in those subsequent iterations, which under Hume's understanding of probability means that the diminution of the vivacity of the original judgment is increasingly reduced until some point is reached at which further iterations will not affect the vivacity of the original judgment. Since this vivacity is what Hume credits most with the presence of belief, then the remaining vivacity of the original judgment will be responsible for the belief in that judgment. Note that Hume's complexity argument under this interpretation also permits an invalidation of the original judgment, in a case in which the diminution of probability in the early stages of correction of the original judgment outstrips the stretching of the mind in subsequent iterations. Under other interpretations of the relation between the diminution argument and the complexity argument, it may be wondered how anyone could *disbelieve* something

based on a complicated argument or proof.

Of course if I am wrong about the nature of the hypothesis that Hume is testing in the complexity argument, if it is not his conception of belief formation, but a particular view of the understanding or even the diminution argument itself, understood as a skeptical argument, then this thesis merely provides a curious side consideration to the interpretation of Hume's skepticism with regard to reason. However, combined with the previous thesis concerning the evidence for two different hypotheses under consideration by Hume, this thesis suggests that the purpose of Hume's complexity argument is to defend his own hypothesis about the mechanism of belief formation against the same kind of arguments he offers against a rival hypothesis.

I have obviously used considerations from some theses to support other theses at least in part, since if the theses are valid, then they need to stand together. I claimed that none of the theses I present here alone demand a naturalistic or skeptical reading of Section 1.4.1, but it seems clear to me that the seven theses taken together support the naturalistic interpretation that Morris presents, though possibly with some amendments. The way that these theses are coordinated to yield the naturalistic interpretation is as follows:

The diminution argument is presented by Hume as descriptive rather than normative, in which the iterative steps in the argument are to be understood as being performed against successive confirmation of an original judgment, rather than against one's assignment of probability. The conclusion of the argument is that as a result of the iterative steps there will be "a total extinction of belief and evidence" (T 1.4.1.6; SBN 183), not that there should be such a total extinction. Even as part of a descriptive argument, this extinction would count as a form of skepticism; yet the diminution argument only works on certain assumptions about belief formation, and Hume denies that anyone adheres to this form of skepticism (T 1.4.1.7; SBN 183). This argument is thus intended by Hume to be part of a *reductio* argument against a different hypothesis about belief formation than his own, namely a purely rationalist hypothesis in which belief results purely from cogitative faculties without the influence of any factor of vivacity, and accordingly he employs a different, more inclusive notion of probability than his own in the diminution argument to make the argument work on that hypothesis. Hume then presents the complexity argument to explain how the pattern of argument in the diminution argument is not also an argument against his own conception of belief formation, since his insistence on the key role of vivacity in belief formation beyond mere cognition is what prevents probabilities diminishing to zero. The end result of this section is a vindication of Hume's prior account of the nature of reason and belief *against* the kind of erroneous skepticism that would result by virtue of the diminution argument on a different account. This at least is the interpretation of Hume to which the seven theses lead me. If I am wrong in this interpretation, then perhaps either one or more of the seven theses will be wrong as well, or perhaps I have not assembled the theses properly into a coherent whole.

I wanted to find skepticism just where it occurred in the *Treatise* and nowhere

else. Section 1.4.1 does address skepticism in the diminution argument, but a form of skepticism that arises only on an assumption of belief formation that Hume does not hold. So despite its tantalizing title, this section does not address any kind of skepticism that Hume himself holds. Rather it seems to me that Hume's own skepticism becomes manifest in the conclusion to Book 1 in Section 1.4.7. However, that claim requires an additional investigation to navigate through a different interpretive controversy.

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