

## Probability and Skepticism About Reason in Hume's *Treatise*

### I

At one point in the section entitled “Of scepticism with regard to reason”, Hume appears to argue for the claim that “all knowledge resolves itself into probability” (I iv 1; 181) and that all probability is vulnerable to “a continual diminution, and at last a total extinction of belief and evidence” (I iv 1; 183) as we question the reliability of our faculties and judgments.<sup>1</sup> It follows from this that all knowledge should degenerate into nothingness. However, Hume notes that we do retain a degree of belief, and says that he has put forth a skeptical argument about probability and demonstrative knowledge “only to make the reader sensible of the truth of [his] hypothesis” that causal reasoning is based merely on custom and imagination. For we do have beliefs, even though we could have no beliefs if belief were the product of demonstrative or probable reason.

The majority of commentators have taken the skeptical argument presented in I iv 1 to be more or less egregiously flawed, tending to locate the flaws in the account of the diminution of probability as a result of self-critical thought.<sup>2</sup> I think that this consensus is mistaken, and I shall attempt to provide the beginnings of a new account of the degeneration of probability and its

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<sup>1</sup> *Treatise of Human Nature*. Ed. P.H. Nidditch: Oxford University Press, 1978. All page and section numbers cited without further identification refer to the *Treatise*.

<sup>2</sup> A prime example of this is Robert Fogelin in *Hume's Scepticism in the Treatise of Human Nature*: Routledge & Kegan Paul, 1985; several of Fogelin's objections to Hume's argument will be discussed later. See also John Passmore, *Hume's Intentions*: Cambridge University Press, 1952; Fred Wilson, "Hume's Sceptical Arguments Against Reason": *Hume Studies* 1983; Mikael Karlsson, "Epistemic Leaks and Epistemic Meltdowns": *Hume Studies* 1990. For further discussion – although not this diagnosis – see Don Garrett (briefly) in *Cognition and Commitment* (OUP, 1996) and Ted Morris, “Hume’s Scepticism about Reason” (*Hume Studies*, 1989), which gives an interesting account of the anti-Cartesian motivation of this section and which (since it makes no effort to address the mechanism by which probability is diminished) I take to be roughly compatible with my account.

failure to move us beyond a certain point. Thus, I take it that the errors which these interpreters attribute to Hume's reasoning can just as easily be seen as indications that both the epistemological agenda and the conception of probability they attribute to him are misguided.

David Owen has quite persuasively argued that we ought to think of Hume's notion of reasoning (both demonstrative and probable) in terms of relations between ideas rather than in terms of entailments between propositions.<sup>3</sup> While Owen puts this claim forward in the context of Hume's discussion of causality in I iii 6, I think that this way of understanding reasoning is crucial to understanding what's going on in the 'skepticism about reason' argument as well. In particular, it is important to understand reasoning in this way, in order to interpret the claim that probability degenerates into nothingness so that it avoids being false in a way that should have been obvious to Hume himself.

Another crucial consideration has to do with understanding what, exactly, Hume means by probability; in particular, in coming to understand his psychology of probability, according to which probable beliefs are produced "neither by arguments derived from demonstration, nor from probability" (I iii 11; 127), but by custom and imagination. This feature of probability is, of course, what allows us to escape from the degeneration of probability before all our beliefs are extinguished. However, it is also crucial for understanding why we cannot rationally decide to stop considering the reliability of our faculties further and thus escape the skeptical threat altogether. These two sets of considerations together form the basis of an account of what is going on in I iv 1 which is, I hope, recommended both in terms of textual evidence and in terms

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<sup>3</sup> David Owen: "Hume's doubts about probable reasoning: was Locke the target?". In ed. M.A. Stewart and John P. Wright: *Hume and Hume's Connexions*. Pennsylvania State University Press, 1994. This is an amended version of his similarly-titled paper in *Hume Studies*, 1992.

of the consistency, coherence, and plausibility it allows us to ascribe to the relevant sections of the *Treatise*.

“Of scepticism with regard to reason” falls into three main parts: the degeneration of demonstration into probability (180-181); the degeneration of probability into nothing (182-183); and the explanation of why the resulting skeptical argument fails to have any hold on us (183-187). I propose to skip the first part altogether (since the nature of Hume’s account of demonstration and intuition is a separate question from the nature of probability) and take the argument up at the point where Hume begins to address the stability of probability itself.<sup>4</sup> However, I shall begin (II) with a brief account of Hume’s notion of probable reasoning and its most important antecedent in Locke’s *Essay*. This section is heavily indebted to Owen, both for the discussion of the Lockean background and for the claim that Hume’s notion of reasoning must be seen as a matter of inferring in accordance with the various relations among ideas. I then (III) lay out the psychology of probability given in I iii 12-14 (“Of the probability of chances”, “Of the probability of causes”, and “Of unphilosophical probability”). These rather long preliminaries in place, I move on (IV) to the way in which probability is said to degenerate as a result of the skeptical argument and (V) Hume’s quick explanation of the failure of this argument to make us give up our beliefs. Finally, (VI) I shall attempt to say something about the normative force which Hume takes the skeptical argument to have, despite the impossibility of its ever moving us to give up belief altogether. This will require some reference to the *general rules* alluded to throughout the *Treatise*.

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<sup>4</sup> All of the above-noted commentators discuss the degeneration of demonstration to probability; see also Annette Baier, *A Progress of Sentiments* (Harvard University Press, 1981), ch.3 & 4, and R.W. Church, *Hume’s Theory of the Understanding* (George Allen and Unwin, 1968), ch. 5.

## II

Hume's first detailed discussion of probability occurs in I iii 6 – “Of the inference from the impression [of a cause] to the idea [of its effect] – in the course of discussing the arguments which might lead to belief in the Uniformity Principle.<sup>5</sup> Hume tells us that any such arguments “must be derived from either *knowledge* or *probability*”; this is, one assumes, because arguments can lend credence to their conclusions only in so far as they render those conclusions either known or probable. Hume then goes on to make two important claims about probable reasoning: first, that probable reasoning links impressions with ideas; and second, that this linkage is performed by means of the relation of causality. Let us take the first claim first:

Probability, as it discovers not the relations of ideas, consider'd as such, but only those of objects, must in some respects be founded on the impressions of our memory and senses, and in some respects on our ideas. Were there no mixture of any impression in our probable reasonings, the conclusion wou'd be entirely chimerical; And were there no mixture of ideas, the action of the mind, in observing the relation, wou'd, properly speaking, be sensation, not reasoning. 'Tis therefore necessary, that in all probable reasonings there be something present to the mind, either seen or remember'd, and that from this we infer something connected with it, which is not seen nor remember'd (I iii 6; 89).

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<sup>5</sup> That is, the principle that instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues always uniformly the same (I iii 6; 89).

Probable reasoning, then, begins with an impression, either of sense or of memory, and proceeds to an idea. Were a line of thought to take into account only relations between impressions, it would be sensation rather than reasoning. And were a line of thought to connect together only various ideas then—so long as the relations involved were not all of the sort which “depend entirely on the ideas, which we compare together”, in which case there would be a demonstration (I iii 1; 67) – the idea finally arrived at would be “entirely chimerical” rather than something for which probable belief is appropriate.

It seems that the relation by which probable reasoning links ideas is the relation of causality. Probable reasoning, that is, infers from the impression of a cause to the idea of its effect. Thus the chief claim of the skeptical argument about reason is quite heavily foreshadowed in the preceding sections: Hume argues in I iii 6 that the inference from cause to effect is not grounded on reason but on custom and imagination, and it follows rather obviously, if probable reasoning functions by means of the relation of causality alone, that no probable reasoning is grounded on anything but custom and imagination. And it has to be the case that probable reasoning operates by the relation of causality alone, as the following considerations show:

It is clear from the very title of I iii 6 – “Of the inference from the impression [of a cause] to the idea [of its effect]”—that causal reasoning is one of the ways in which we infer something neither seen nor remembered from an experienced object. The discussion of the Uniformity Principle, which is supposed to be presupposed by probable reasoning, makes clear that causality is the *only* such relation. The other two plausible candidates for probable relations are identity and spatiotemporal contiguity. For causation, identity, and ‘contiguity and distance’ are

identified as the three relations “such as may be chang’d without any change in the ideas” (I iii 1; 69) - that is, relations which are not properly used in *demonstrative* reasoning - at the very beginning of Part III of Book 1. However, Hume argues that neither identity nor contiguity could provide bases for probable reasoning, for neither of these relations can lead us from a present impression to the idea of an absent object. Identity cannot give us any *new* ideas at all; neither, Hume seems to assume, can spatiotemporal contiguity. Thus Hume concludes that

The only connexion or relation of objects, which can lead us beyond the immediate impressions of our memory and senses, is that of cause and effect; and that because ‘tis the only one, on which we can found a just inference from one object to another (89).

That is, causality is the only relation which could ground a ‘just inference’ of the sort relevant to probable reasoning.

Hume’s next, and more extended, discussion of probability occurs in I iii 11-14. He begins the sections on probability as follows:

Those philosophers, who have divided human reason into *knowledge* and *probability*, and have defin’d the first to be *that evidence, which arises from the comparison of ideas*, are oblig’d to comprehend all our arguments from causes or effects under the general term of probability. But tho’ every one be free to use his terms in what sense he pleases; and accordingly in the precedent part of this discourse, I have follow’d this method of expression; ‘tis however certain, that in common discourse we readily affirm, that many arguments from causation exceed probability, and may be receiv’d

as a superior kind of evidence ... 'twould perhaps be more convenient, in order at once to preserve the common signification of words, and mark the several degrees of evidence, to distinguish human reason into three kinds, viz. *that from knowledge, from proofs, and from probability*. By knowledge, I mean the assurance arising from the comparison of ideas. By proofs, those arguments, which are deriv'd from the relation of cause and effect, and which are entirely free from doubt and uncertainty. By probability, that evidence, which is still attended with uncertainty (124).

It is generally accepted that the chief among “those philosophers who have divided human reason into knowledge and probability” is Locke. The explicit claim of this passage is that Hume intends to use ‘probability’ differently from Locke, by reserving it for cases where some uncertainty remains, and calling those where we feel entirely certain, ‘proof’. While this will be relevant later, the implication of the passage—that Hume otherwise accepts and appropriates Locke’s distinction between knowledge and probability—is what is important for present purposes. For it enables us to get some further grasp on Hume’s notion of probability by looking at its Lockean ancestor.

Locke limits what we can have knowledge of quite strictly, but notes that, due to the goodness of God, we also have “the twilight ... of *Probability*” (*Essay* IV xiv; 652).<sup>6</sup> As well as the faculty of knowledge—that which gives us certain and demonstrative proofs<sup>7</sup> – we have the faculty of

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<sup>6</sup> *John Locke: An Essay Concerning Human Understanding*. Ed. P.H. Nidditch: Oxford, 1975.

<sup>7</sup> These are not proofs in Hume’s sense, of course, but rather certain and demonstrative *arguments* (see below).

*Judgment*, which is the putting *Ideas* together, or separating them from one another in the Mind, when their certain Agreement or Disagreement is not perceived, but *presumed* to be so; which is, as the Word imports, taken to be so before it certainly appears ... (*Essay IV xiv 4*; 653).

This faculty of judgment delivers to us probable beliefs, or probability:

... *Probability* is nothing but the appearance of such an Agreement [of ideas], or Disagreement, by the intervention of Proofs, whose connexion is not constant and immutable, or at least is not perceived to be so, but is, or appears for the most part to be so, and is enough to induce the Mind to *judge* the Proposition to be true, or false, rather than the contrary (*Essay IV xv 1*; 654).

Probability, or “likeliness to be true” (*Ibid.*), differs from knowledge in several notable respects.

While one either has knowledge of a given thing or not, probability admits of degrees:

from the very neighborhood of Certainty and Demonstration, quite down to Improbability and Unlikeliness, even to the Confines of Impossibility; and also degrees of *Assent* from full *Assurance* and Confidence, quite down to *Conjecture*, *Doubt*, and *Distrust* (*Essay IV xv 2*; 655).

Thus degrees of probability are identified with degrees of confidence or assurance, both with and without mention of the warrant of such assurance. Locke tells us that the grounds of probability are both “the Foundations on which our *Assent* is built” and “the measure whereby its several degrees are, or ought to be *regulated*” (*Essay IV xvi 1*, 657). (The relation between these normative and descriptive senses of the concept of probability is rather obscure and, I take it,



remains so in Hume: this is the subject of my section VI.) Moreover, degrees of probability are introduced—and discussed almost exclusively—qualitatively rather than quantitatively; in particular, probability is not spoken of in any terms which suggest that it has to do with the assigning of values to propositions.

The most important respect in which probability differs from knowledge is that knowledge is founded on intuition while intuition is irrelevant to probability:

... herein lies the *difference between Probability and Certainty, Faith and Knowledge*, that in all the parts of Knowledge, there is intuition; each immediate *Idea*, each step has its visible and certain connexion; in belief not so. That which makes me believe, is something extraneous to the thing I believe; something not evidently joined on both sides to, and so not manifestly showing the Agreement, or Disagreement of those *Ideas*, that are under consideration (*Essay IV xv 3; 655*).

The steps involved in demonstration are intuitive, that is, ‘visible and certain’. This is not the case for probability, in which, as we have seen, the connection between ideas is only *presumed to be so*, rather than *certainly perceived*.

While the above passage shows that demonstration and probability differ in respect to intuition, it also suggests a structural similarity. Locke here speaks of the “steps” in arriving at (demonstrative) knowledge as *ideas*. Similarly, he speaks of judgment—which as we have seen is that (faculty) which arrives at probability—as proceeding by chains of ideas:

*Judgment*, is the thinking or taking two *Ideas* to agree, or disagree, by the intervention of one or more *Ideas*, whose certain Agreement, or Disagreement with

them it does not perceive, but hath observed to be frequent and usual (*Essay* IV xvii 17; 685).

Indeed, so clear is the subscription to the model of logical reasoning as constructing chains of ideas that Locke takes ‘proofs’ to be more or less synonymous with ‘intervening ideas’:

Those intervening *Ideas* which serve to show the Agreement of any two others, are called *Proofs* ... (IV ii 3; 532).

Thus the above-quoted claim of IV xv 1 - that probability is the agreement of ideas by the intervention of mutably and inconstantly connected proofs - is a claim about the sorts of links in a chain of ideas which lead to probability rather than demonstration.

This conception of both demonstrative and probable reasoning as proceeding by linking ideas together in the mind is also that made use of by Hume. He notes, in the course of criticizing scholastic logic, that

... ‘tis far from being true, that in every judgment, which we form, we unite two different ideas; since in that proposition, *God is*, or indeed any other, which regards existence, the idea of existence is no distinct idea, which we unite with that of the object, and which is capable of forming a compound idea by the union ... as we can thus form a proposition, which contains only one idea, so we may exert our reason *without employing more than two ideas*, and *without having recourse to a third to serve as a medium betwixt them*. We infer a cause immediately from its effect; and this inference is not only a true species of reasoning, but the strongest of all others,

and more convincing *than when we interpose another idea to connect the two extremes* (I iii 8 n; 96-97; italics mine).

I shall return to this passage later; what is important here is the clarity with which the notion of reasoning as a chain of ideas is put forth.<sup>8</sup> For, while Hume speaks of propositions here, it is clear that the propositions are simply compounds of ideas resulting from a chain of reasoning, and not the items related in reasoning. This is pointed out again in the following:

All kinds of reasoning consist in nothing but a *comparison*, and a discovery of those relations, either constant or inconstant, which two or more objects bear to each other (I iii 2; 73).

Since we discover the relations which objects bear to each other by relating the ideas of which they are objects, this provides evidence that Hume thinks of reasoning as relating ideas. This conception of reasoning is helpful, I think, in making sense of Hume's claims that something can be known demonstratively only if the ideas involved are inseparable. It also fits in well with Hume's distinction between demonstration and probability in terms of the two different sorts of relations between ideas (or impressions) involved—probability in terms of identity, causation, and spatiotemporal contiguity; and demonstration in terms of the remaining four.<sup>9</sup> Thus it strikes

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<sup>8</sup> Take also the following:

... Reason is nothing but a wonderful and unintelligible instinct in our souls, which carries us along a certain train of ideas, and endows them with particular qualities, according to their particular situations and relations (I iii 16; 179).

This explicitly takes reasoning to be a matter of proceeding through relations of ideas. Someone might reasonably object that this tells us only about the association of ideas, which Hume takes to be what underlies our process of reasoning so-called, and not about the conception of reasoning with which Hume begins his analysis. However, the claim that all reason is really just custom and imagination is both suggested and made more natural by a conception of reasoning as a train of related ideas.

<sup>9</sup> That is, resemblance, degrees in any quality, quantity, and contrariety (I i 5; 14-15).

me as reasonably clear that it is a mistake—one which could lead us seriously astray in considering Hume’s skeptical argument about reason—to give an account of Hume’s notion of probability which presupposes that probabilities are features of propositions, or that probabilities are arrived at by assessing logical relations between propositions. While such an account is more in keeping with current concerns, it is a serious distortion of Hume’s project. This will play an important role in my reconstruction of Hume’s account of the degeneration of probability.

While I have up till now been speaking of reasoning in terms of chains of related *ideas*, this is not entirely accurate. Demonstration links together ideas exclusively, but probable reasoning deals, as we have seen Hume insist, with both ideas and impressions. For ease of expression I shall continue to speak of Hume’s model of reasoning as in terms of relations among ideas where this will not cause confusion; it should be remembered, however, that chains of probable reasoning must begin with an impression.

### III

Since, as we have seen, probable reasoning is a process of connecting together ideas in the mind, it is entirely natural of Hume to undertake an investigation of the associative principles by which these ideas are connected—and entirely natural, also, to refrain from making the clear distinction between the logical and psychological senses of probability which we might like to find in him.<sup>10</sup> The psychological investigation takes up the bulk of I iii 11-14. In I iii 15, as well

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<sup>10</sup> The logical sense of probability I am concerned with is simply the Lockean notion that probability describes the extent to which certainty is appropriate as well as the extent of felt certainty; this is rather far from contemporary notions. Ian Hacking describes a process of conceptual shift for the notion of probability, starting from testimony-

as in fragments of the preceding sections, Hume provides a normative account of probable reasoning. I shall make some attempt to disentangle the two in the following explication of the psychology of probability, but the bulk of what I have to say about the normative account of probability will be given in IV and VI below. In any case, I take it that it would be unfair to Hume's project to insist on there being any *sharp* distinction since, I shall suggest, the normativity of probable belief is a matter of the importance we ascribe to a particular set of psychological processes.

Hume discusses three sorts of probability—the probability of chances, the probability of causes, and ‘unphilosophical probability’ – and argues that they all stem from the same psychological sources, those discussed in the account of causality.<sup>11</sup>

Hume begins “Of the probability of chances” by telling us that

in order to bestow on this system its full force and evidence, we must carry our eye

from it a moment to consider its consequences, and explain from the same principles

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based ‘opinion’ and moving towards approvability, perhaps approvability based on the ‘testimony of nature’. By Hume’s time, Hacking argues, the concept of probability has fairly clearly taken on its contemporary duality, degree of belief warranted by evidence, and the tendency to produce stable relative frequencies over time (*The Emergence of Probability*, Cambridge, 1975; “Hume’s Species of Probability”: *Philosophical Studies*, 1978). Thus ascribing a Lockean notion of probability – having nothing to do with relative frequencies – to Hume, might seem anachronistic. However, it is also inevitable: while I iii 11 contains frequentist ideas, they are quite clearly conceived as the origin of probabilities rather than probabilities themselves, and there is little suggestion that probable beliefs are warranted by any sort of evidence about frequencies. Indeed, while Hume speaks of probability in terms of degrees of evidence, this seems equivalent to degrees of certainty: ‘evidence’ is synonymous with ‘evidentness’ (see e.g. I iii 11; 124), as it is for Locke (see e.g. *Essay* IV xv 1; 579).

<sup>11</sup> Hacking tells us that the term “probability of causes” came to refer to questions about inferring probability distributions from observed data – something like our sense of induction. This usage was established, with a fairly precise technical sense, by the time of Laplace (1774), and was starting to emerge by about 1730 in Daniel Bernoulli’s work (Hacking 1978, ch. 14 & 18; see also Lorraine Daston, “Probability and Evidence” in ed. Daniel Garber and Michael Ayers, *The Cambridge History of 17<sup>th</sup> Century Philosophy*: Cambridge University Press, 1997). However, Hacking does not tell us anything about previous usages of the term, and those seem more likely to be relevant than the emerging technical sense, given that I know of no reason to believe that Hume was concerned or even familiar with such recent developments.

some other species of reasoning, which are deriv'd from the same origin (I iii 11; 124).

The account of probability given here must thus be understood as building upon principles already established in the *Treatise*. The ability to explain probability is seen by Hume as a sort of test of the system he has already developed. We shall see later that the same is true of the ability to explain why the skeptical argument of I iv 1 fails to affect our beliefs.

First, the probability of chances. Chance is merely the absence of a *known* cause rather than an objective phenomenon for Hume; I take this to be a point his contemporaries would have accepted independently of the Humean view of causation which might be thought to render it trivial. Thus chance affects the imagination only negatively:

A cause traces the way to our thoughts, and in a manner forces us to survey such certain objects, in such certain relations. Chance can only destroy this determination of the thought, and leave the mind in its naive situation of indifference; in which, upon the absence of a cause, 'tis instantly re-instated (I iii 11; 125).

Because of this, Hume says, the only way in which we can grasp unequal chances is by seeing them as made up of "a superior number of equal chances" (Ibid.). Thus in this section,

The question is, by what means a superior number of equal chances operates upon the mind, and produces belief or assent, since it appears that 'tis neither by arguments derived from demonstration, nor from probability (I iii 11; 127).

The claim that an unequal number of chances cannot operate on the mind “from demonstration, nor from probability” is supposed to follow from the account of causal belief developed earlier:

Here we may repeat all the same arguments we employ’d in examining that belief, which arises from causes; and may prove after the same manner, that a superior number of chances produces our assent neither by *demonstration* nor *probability* (I iii 11; 126).

A superior number of equal chances cannot lead to belief by means of demonstrative reasoning, since there is nothing in the idea of a superior number of chances which necessitates the outcome of a future event:

‘Tis indeed evident, that we can never by the comparison of mere ideas make any discovery, which can be of consequence in this affair, and that ‘tis impossible to prove with certainty, that any event must fall on that side where there is a superior number of chances (Ibid.).

I take it that the inability of demonstrative reasoning to produce probable belief is relatively straightforward. The more important claim is that *probable* reasoning cannot be what determines that an unequal number of chances leads to belief. Hume dismisses the suggestion that probable reasoning could be the source as follows:

Shou’d it be said, that tho’ in an opposition of chances ‘tis impossible to determine with *certainty*, on which side the event will fall, yet we can pronounce with certainty, that ‘tis more likely and probable, ‘twill be on that side where there is a superior number of chances, than where there is an inferior: Shou’d this be said, I wou’d ask,

what is here meant by *likelihood* and *probability*? The likelihood and probability of chances is a superior number of equal chances; and consequently when we say 'tis likely the event will fall on the side, which is superior, rather than on the inferior, we do no more than affirm, that where there is a superior number of chances there is actually a superior, and where there is an inferior there is an inferior; which are identical propositions, and of no consequence (I iii 11; 127).

At bottom, chances can only be equal, since they derive solely from complete ignorance about causal relations; we have no knowledge or beliefs on which to judge of any inequality in the basic case. Thus we make judgments about unequal likelihood or probability only by building up complex chances from ratios of basic, equal chances. Thus, Hume argues, we cannot explain the phenomenon of belief in the conclusion of probable arguments by appeal to the greater *likelihood* of the conclusion than other possible outcomes, unless we have already provided an explanation for how a superior number of equal chances leads to belief. Hume thinks he has such an explanation, and it is one which does not appeal to rational mechanisms of any sort. It follows from this, of course, that our belief in the conclusion of probable arguments is not produced by rational means.

Hume's explanation takes as its main example of the formation of probable belief, the case of someone who rolls a die which has four sides marked with one figure (say a '1') and two marked with another (say a '2'). Hume tells us that when such a person forms a belief about the outcome of the next throw of the die,



He in a manner believes that [a 1] ... will lie uppermost; tho' still with hesitation and doubt, in proportion to the number of chances, which are contrary. And according as those contrary chances diminish and the superiority increases on the other side, his belief acquires new degrees of stability and assurance (I iii 11; 127).

It is notable here that what is believed seems as if it must be a single idea. If the chance of getting a 1 is  $2/3$ , then what we believe is not that there is a probability of  $2/3$  of getting a 1. Rather, we believe—with a 'degree of stability and assurance' corresponding to the  $2/3$  probability—that the outcome of the next throw of the die will be a 1. For given Hume's notion of belief as merely the having of an idea or impression in the mind with a certain degree of force or vivacity, it must be the case that 'belief, however faint, fixes itself on a determinate object' (I iii 12; 140).

This may strike one as somewhat odd. For it seems to preclude Hume from taking the beliefs arrived at on the basis of probable arguments as being anything like the beliefs about probabilities of propositions which strike us as the most natural way of describing the outcome of probable reasoning. However, this notion of probable belief follows quite naturally from Hume's explanation of how the die-tosser's belief is formed.

This explanation is in three steps. First, Hume invokes the determination of the mind by custom to pass from an impression of a cause to the idea of its effect. Thus, when the mind considers the dye as no longer supported by the box, it cannot without violence regard it as suspended in the air; but naturally places it on the table, and views it as turning up one of its sides (I iii 11; 128).

Thus Hume takes it to follow from the preceding account of the psychology of causal inference that the result of reasoning about the outcome of a toss of the die must be the imagination of one particular outcome.

Second, Hume adverts to his previous claim that we suppose that whatever effect happens as a result of the toss of the die, that effect is ‘necessarily determined’ to follow. In cases of chance we do not know which effect is necessitated. Given the complete causal ignorance which is chance, our minds are exactly equally determined to consider each of the six possible outcomes, despite knowing that only one can occur:

The imagination passes from the cause, *viz.* the throwing of the dye, to the effect, *viz.* the turning up one of the six sides, and feels a kind of impossibility both of stopping short in the way, and of forming any other idea. But as all these six sides are incompatible, and the dye cannot turn up above one at once, this principle directs us not to consider all of them at once as lying uppermost; which we look upon as impossible: Neither does it direct us with its entire force to any particular side; for in that case this side wou’d be consider’d as certain and inevitable; but it directs us to the whole six sides after such a manner as to divide its force equally among them ... ‘Tis after this manner the original impulse, and consequently the vivacity of thought, arising from the causes, is divided and split in pieces by the intermingled chances (I iii 11; 129).

We cannot, on pain of inconsistency with our ignorance of the cause, conclude that any particular one of the sides will come up (or is more likely to come up). We cannot, given the

notion of causation developed previously, conclude that none will come up. And we cannot, on pain of incoherence, imagine that *all* of them will come up. Thus the force and vivacity possessed by the impression of the throw of the dice is split up equally between the ideas of the six possible outcomes.

Third, we must take into account that four of the six possible outcomes (the four sides marked with a '1') resemble each perfectly, as do the two outcomes where a '2' is thrown:

as the same figure is presented by more than one side; 'tis evident, that the impulses belonging to all these sides must re-unite in that one figure, and become stronger and more forcible by the union. Four sides are suppos'd in the present case to have the same figure inscrib'd on them, and two to have another figure. The impulses of the former are, therefore, superior to those of the latter. But as the events are contrary, and 'tis impossible both these figures can be turn'd up; the impulses likewise become contrary, and the inferior destroys the superior, as far as its strength goes. The vivacity of the idea is always proportionable to the degrees of the impulse of tendency to the transition; and belief is the same with the vivacity of the idea (I iii 11; 130).

The four cases where a '1' results are exactly equivalent in our imagination and so cannot be kept distinct; they come together to form an idea four times as vivacious as the idea of one side. Similarly, our idea of a '2' resulting is twice as vivacious as the idea of one side. Since only one of the two outcomes can occur, the two ideas are contrary. I take it we are supposed to accept it as simply a fact about the workings of the imagination that it deals with this contrariety by

removing all force from the less forceful idea, and an equal amount of force from the more forceful. (One might imagine this following a model of the competition of physical forces which would have been familiar to Hume.)

Thus it seems, on Hume's account, that we end up with an idea of a '1' resulting which is fairly weak, and an idea of a '2' resulting with *no force at all*; that is, with a weak belief that a '1' will be thrown and no belief that a '2' will occur. In general, if x is the outcome which is, so far as we know, the most frequent or probable in the standard contemporary sense, then we believe that x will happen with a strength proportional to its frequency or probability, and do not have any belief at all that other outcomes will occur. However, there is no suggestion that our *awareness* of objective frequencies is what makes us have the degree of certainty we do. We are not assigning certainty in accordance with our beliefs, but rather being brought, by the influence of past frequencies on the workings of our imaginations, to *hold* beliefs with a given degree of certainty which, Hume argues, corresponds to past frequencies. It appears that this is supposed to happen in an entirely mechanical and unconscious way.

Hume's account of the probability of causes relies on the same mechanisms postulated in the case of the die for the probability of chances. The account is rather more complicated since, while the probability of chances rests on our complete causal ignorance, the probability of causes derives from our having *contrary* causal beliefs. Fortunately, the complications engendered by this feature can safely be ignored for present purposes.

Hume starts off 'The Probability of Causes' by asserting once again that causes completely determine their effects, i.e. that given a cause we infer the effect necessarily and

inescapably, and concludes from this that ‘a contrariety of effects always betrays a contrariety of causes’ (I iii 12; 143). Thus we assign variance in the effects to unknown variance in the causes, just as, in the probability of chances, we assume that the outcome is determined although we are completely ignorant of the cause. Since the probabilities of chances and causes are revealed to be structurally almost identical, Hume proceeds to explain how probable belief results from a variety of cause-effect conjunctions having been observed in the past in much the same way as he explained the case of the die:

when in considering past experiments we find them of a contrary nature, this determination [of the mind to ‘transfer the past to the future’], tho’ full and perfect in itself, presents us with no steady object, but offers us a number of disagreeing images in a certain order and proportion. The first impulse, therefore, is here broke into pieces, and diffuses itself over all those images, of which each partakes an equal share of that force and vivacity, that is deriv’d from the impulse (I iii 12; 134).

Hume again makes clear that the compounding of these ideas results in our having one single, determinate idea (or ‘image’), again with a force and vivacity corresponding to the proportion by which that effect occurred in relation to the other possible outcomes:

as we frequently run over those several ideas of past events, in order to form a judgment concerning one single event, which appears uncertain; this consideration must change the *first form* of our ideas, and draw together the divided images presented by experience; since ‘tis to *it* we refer the determination of that particular event, upon which we reason. Many of these images are suppos’d to concur, and a

superior number to concur on one side. These agreeing images unite together, and render the idea more strong and lively, not only than a mere fiction of the imagination, but also than any idea, which is supported by a lesser number of experiments ... This operation of the mind has been so fully explain'd in treating of the probability of chances, that I need not here endeavour to render it more intelligible (I iii 12; 134-5).

With this explanation of the basis of our belief in the conclusions of probable arguments in place, Hume takes himself to have established his conclusion, namely the claim that probability (like the causal relation from which it derives) could not be a product simply of reason, but must derive from the imagination:

Our past experience presents no determinate object; and as our belief, however faint, fixes itself on a determinate object, 'tis evident that the belief arises not merely from the transference of past to future, but from some operation of the *fancy* conjoin'd with it. This may lead us to conceive the manner, in which that faculty enters into all our reasonings (I iii 12; 140).

For not only does probability inherit the imaginative nature of all cause-effect inference, it also has its own dependence on the imagination to derive a determinate object from the varied past occurrences.

I have argued, then, that Hume has a view of probable reasoning on which probable reasoning is a matter of inferring from impressions along a chain of ideas which are associated primarily by the relation of causality; that he sees there to be no way for this process of inference

to be explained solely by appeal to the resources of the faculty of reason; and that he thus takes the mechanism underlying probable reasoning to be simply a matter of fact about the way in which the imagination operates. With these points in mind, it is time to move on to the skeptical argument about reason he proposes at the beginning of Part IV of Book 1.

#### IV

I shall take that argument up at the point where Hume thinks it has been established that demonstrative knowledge turns into mere probability as a result of critical reflection on our faculties, and proceeds to argue that this probability reduces to nothing as a result of the same sort of reflection. The argument is very brief, beginning with the claim that

In every judgment, which we can form concerning probability ... 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 (I iv 1; 181-2).

This is simply because even a 'man of the best sense and longest experience' is aware that he has made errors in the past and could do so in the future. From this awareness 'arises a new species of probability to correct and regulate the first': probability is 'liable to a new correction by a reflex act of the mind' (I iv 1; 182). Hume then points out that there seems to be no reason why we should stop this process of correction after the first or second doubt:

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 obliged 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 preceding 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 (Ibid.).

This passage is at best obscure, and a number of questions arise immediately: In what sense are we *obliged by reason* to add a new doubt? Why would a new doubt weaken our first evidence even if it were favourable to the preceding judgment? And why must this process goes on *in infinitum*? In order to provide some sort of answers to these questions, I propose to tell a story—one which I think fits in well with the notion of probability developed in the previous two sections—which at least *could* be Hume's, and which has the advantage of not rendering Hume's reasoning in this passage as foolish as most previous interpretations have done. While I cannot claim with any certainty that this story is what Hume had in mind, the same would, I think, have to be said for any interpretation; Hume's brief explication of the skeptical argument simply under-determines interpretation.

The story begins with an attempt to work out the relationship between the skeptical argument about reason and the doctrines of causality put forth in Part III of Book I. Hume tells us that once we begin to think about our faculties critically, we cannot think of them “as a kind of cause, of which truth is the natural effect” without noting that our mind is “such-a-one as by the irruption of other causes, and by the inconstancy of our mental powers, may frequently be



prevented” (IV i 1;180). This should warn us that the subtext of Hume’s argument in this section is the claim of I iii 6 that the inference from cause to effect is not grounded in reason; we should see the skeptical argument about probable reason as beginning from the claims of the arationality of causal inference developed in the previous section. While Hume warns us of the inconstancy of reason in the first step of the skeptical argument, the degeneration of knowledge to probability, it applies at the second step also:

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 (IV i 1; 181-2).

That is, once we undertake critical self-reflection—or are forced to address the skeptical challenge—we are forced to call into question, and thus correct, what was previously a simple chain of reasoning about objects in the world.

This simple chain of reasoning, after the first doubt, has to be replaced by a more complicated chain of reasoning which relates ideas about the nature of the understanding as well as about objects. Unfortunately Hume does not provide us with an example, so let us pick one: I infer from my impression of clouds of a certain sort overhead that rain is coming. The *ground* of this inference is my experience that this sort of cloud has often been followed by rain in the past; however, I do not bring considerations about the ground of my inference into my train of thought when making the ‘first judgment ... [about] the nature of the object’.

The relation between my impression of clouds and my idea of rain is merely probable—as opposed to intuitive, demonstrative, perceptual, or certain in the purely psychological sense in which proof is certain—and therefore renders the conclusion less evident than it could be. For it is definitive of probable reasoning that it does not render its conclusions entirely certain; this is what distinguishes probability from proof. Thus—in an attempt to become more certain or to determine how evident the conclusion really is—there is room for the interposition of new ideas in the original line of reasoning.

We go on to consider the nature of the understanding as well, by interposing ideas about the nature of the understanding—such as those put forth by Hume in the previous chapters—into the inference. Thus we come to reason from the impression of clouds, to the thought that we have in the past generally been right in inferring from such impressions to the idea of rain and such the like, to the idea that rain is now imminent. This is the second stage. Now, once we have brought the operations of our mind into consideration explicitly, we can note that the inference from our having generally been right in inferring from such clouds to the idea of rain is, again, merely *probable*. Thus we might still, in the hope of arriving at certainty or at least at a reasonable judgment of the evidentness of our conclusion, interpose a further idea to the effect that our judgment of the accuracy of our faculties was legitimate. At this third stage, we have replaced the simple inference from clouds to rain with a much longer and more complicated inference, one which still terminates in the idea of rain.

The idea of rain thus arrived at will be less forceful and vivacious than the idea of coming rain we had from the first, simplest chain of reasoning—and hence less probable and certain to us. All other things being equal, a conclusion is less probable, the longer the chain of reasoning

leading to it.<sup>12</sup> Thus, the same desire for certainty we had before, forces us into more self-reflection, at which point we realize, for instance, that there is also a “doubt deriv’d from the possibility of error in the estimation we make of the truth and fidelity of our faculties” (Ibid.). Since we have nowhere transcended probability (into demonstration or proof), all the links in the chain of reasoning are merely probable. Thus there is again room for the interposition of further steps. And now, given this doubt or lack of certainty, we replace the present chain of reasoning with a third, still longer, chain of related ideas: one containing the thought, for instance, that our judgments of our accuracy are generally themselves relatively accurate. Hume notes that

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 further our first evidence (Ibid.; italics mine).

Hume is often criticized, in this section, for failing to take into account that meta-level reflection on probabilities might just as well cause us to think that our previous probability assignment was

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<sup>12</sup> The note that all other things must be equal is crucial. Hume describes two very different sorts of case in which probability fails to vary with length of proof. One is the skeptical argument about reason itself, where Hume will suggest that it is the very faintness and obscurity of the ideas intervening at late stages which makes the probability arrived at thereby, fail to diminish in accordance with length. The other is the case of testimony. Hume writes – describing a result which does not actually happen although we might expect it to, given the account he has previously developed – that

... there is no history or tradition, but what must in the end lose all its force and evidence. Each new probability diminishes the original conviction; and however great that conviction may be suppos’d, ‘tis impossible it can subsist under such re-iterated diminutions. This is true in general; tho’ we shall find afterward, that there is one very memorable exception, which is of vast consequence in the present subject of the understanding (I iii 13; 145-6).

(The ‘memorable exception’ here just is the failure of the skeptical argument about reason.) Hume goes on to argue, however, that “although the links are innumerable ... yet they are all of the same kind” (I iii 13; 146), and thus there is no diminution of probability after the first instance for there is no urge on the mind to consider each link separately: “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 confused and general notion of each link” (Ibid).

too low, rather than too high. Thus, the criticism goes, there is no reason to think that the probability assignment should continue to go down, as the skeptical regress progresses. However, I take Hume's suggestion to be that this point is simply irrelevant. Even if a new doubt gives us reason to think that our faculties might be more reliable in a certain domain than we had imagined, the interposition of this doubt in the chain of probable reasoning still causes the line of reasoning in question to become longer, and hence, in Hume's terms, to lend less probability to the final idea. For on Hume's conception of the nature of judgment, judgments are more convincing, the more direct the connection between starting-point and conclusion:

... 'tis far from being true, that in every judgment, which we form, we unite two different ideas; since in that proposition, *God is*, or indeed any other, which regards existence, the idea of existence is no distinct idea, which we unite with that of the object, and which is capable of forming a compound idea by the union ... as we can thus form a proposition, which contains only one idea, so we may exert our reason without employing more than two ideas, and without having recourse to a third to serve as a medium betwixt them. We infer a cause immediately from its effect; and this inference is not only a true species of reasoning, but the strongest of all others, and *more convincing than when we interpose another idea to connect the two extremes* (I iii 8 n; 96-97; italics mine).

While Hume could be seen in I iv 1 as offering a *diagnosis* of this phenomenon, the phenomenon is best seen, I think, as being in Hume's eyes simply a fact about the way we engage in probable reasoning.

Commentators have often objected to Hume's argument on the grounds that it assumes that considering the reliability of our faculties ought to make us take our original judgment that rain is coming to be less probable when, on their notion of probability, it could equally well imply that our initial judgment had *more* probability than we realized. This objection relies on a description of the degeneration of probability in terms of an ascending series of meta-level propositions about probability, leading to an infinite regress. I have been arguing that this description of the argument is simply wrong.

Evidence for this is provided by the fact that commentators who adopt what I think is the mistaken model involve themselves in difficulties when trying to explain how Hume could have mistakenly thought that a meta-level probability reassessment should force us to revise the probability assessment arrived at a level below. Take, for example, Fogelin:

Hume's next point [after noting that the degree of probability assigned to propositions about the reliability of our faculties is less than 1] is that these considerations must lead us to lower the probability assignment given to the original proposition. This, however, is simply wrong. However certain or uncertain we are about our ability to calculate probabilities, if a proposition has a certain probability, that (tautologically) is the probability it has (Fogelin 18).

This criticism would be entirely fair were Hume adopting the model Fogelin ascribes to him. However, the model itself is mistaken; the addition of what Fogelin thinks of as meta-level doubts does not cause us to consider the probability of propositions about our faculties, but rather to feel compelled to add considerations about the reliability of our faculties into the chain

of reasoning leading to the original proposition. There is no regress of propositions. Each consideration terminates in the idea which the original consideration of probability terminated in; it merely does so by a more circuitous, and hence less probability-engendering, route.

There seems, as I have argued, to be no reason why we should ever stop this escalation of complication in the reasoning leading to the original conclusion. Each new complication just makes the situation worse: the chain of probable reasoning beginning with the impression of a certain cloud formation and ending with the idea of a coming rainstorm is becoming longer and longer, and, because of the fallibility of probable reasoning, the longer the chain of reasoning leading to my final idea, the more places there are where I could have been led astray. We get into trouble by an attempt—suggested by the skeptical challenge or by our reason itself—to become certain; but since each attempt to attain more certainty or evidence ends up diminishing the probability of the original judgment, we will never satisfy our original desire for certainty and hence there is no reason we should ever stop.

Thus it seems that we should have no degree of probability in any idea which is arrived at through probable reasoning. Hume tells us that

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 (I iv 1; 182-183).

Hume here speaks of the diminishment of the “force and vigour” of the first belief in such a way as seems more or less synonymous with its probability. What is being reduced to nothing under a decrease repeated *in infinitum*, then, seems to be the force and vigour of the original idea—a psychological characteristic of the idea—rather than anything like a numerical degree of probability assigned to a proposition entertained. However, if what is decreased is merely a property of our *ideas*, rather than a measure of some objective probability, one might wonder what sort of normativity the skeptical argument has. This will become particularly worrisome after we consider, in the next section, Hume’s explanation of why we are not convinced by the skeptical argument.

I have argued that two features of Hume’s notion of probability deserve close attention in trying to figure what is going on in “Of scepticism with regard to reason”. My explication of the skeptical argument has relied heavily on the idea that Humean probable reasoning is a process of linking ideas together by means of the relation of causality. I noted in III above that Hume thinks that this process of relating ideas is derived originally from the faculty of imagination, rather than reason. I shall now argue that this point is what Hume is relying on in his explanation of the failure of the skeptical argument to make us give up the having of beliefs.

## V

Hume’s argument in Part III of Book 1 is intended to establish the conclusion that reasoning in terms of the relation of cause and effect is not based on any intrinsic connection between the two objects involved, nor any other demonstrative or probable source. Rather, the

impression of a cause and the idea of its effect are associated by a non-rational mechanism—custom and imagination. And, since, I have suggested, all probable reasoning is based on the relation of causality, by “Of scepticism with regard to reason” Hume takes it to have already been established that probable reasoning is not grounded in reason but in custom and imagination. Indeed, as we have seen, the account of probability provided in I iii 11-14 is intended to explain how it is that imagination and custom give rise to probability. Thus, Hume’s note that the skeptical argument of the first two sections of I iv 1 fails to have any hold on us, cannot be surprising at this point in the *Treatise*. Rather, as Hume points out in regards to the skeptical argument,

My intention ... is only to make the reader sensible of the truth of my hypothesis, that all our reasonings concerning causes and effect 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 iv 1; 183).

The skeptical argument purports to show that it is irrational of us to ever place any significant degree of probability in a probable judgment. However, it is clear that we often do have probabilities. Thus probable belief cannot be determined on rational grounds; it must be an act of the sensitive part of our natures.

After laying out the skeptical argument, then, Hume goes on to explain its failure to have any hold on us. The skeptical argument began by noting that we do, in fact, tend to revise our probabilities downwards as a result of critical reflection on our faculties, and that this critical reflection is motivated by a desire for greater certainty. Hume then argues that, given that we



have this motivating desire, and given that it is never satisfied by the ongoing process of reflection, we should never stop the process of reflection, and thus should revise all our probabilities down to nothing. However, we do not actually do this; while the skeptical argument may weaken our beliefs somewhat, it does not cause us to abandon them altogether.

Hume's explanation of the failure of the skeptical argument to convince us, accepts that there is no reason for us to stop this process, but notes that—on his account of the psychology of probable belief—it is nevertheless unsurprising that we stop after a certain level of complexity is reached. He has already argued, in the course of the original exposition of probability, that the vivacity of the impression which begins a chain of probable reasoning, diminishes with each step in the argument:

... tho' our reasonings from proofs and from probabilities be considerably different from each other, yet the former species of reasoning often degenerates insensibly into the latter, by nothing but the multitude of connected arguments. 'Tis certain, that when an inference is drawn immediately from an object, without any intermediate cause or effect, the conviction is much stronger, and the persuasion more lively, than when the imagination is carried thro' a long chain of connected argument, however infallible the connexion of each link may be esteem'd. 'Tis from the original impression, that the vivacity of all ideas is deriv'd, by means of the customary transition of the imagination; and 'tis evident this vivacity must gradually decay in proportion to the distance, and must lose somewhat in each transition (I iii 13; 144).

Indeed, this loss of vivacity is the feature of the association of ideas which underlies the claim, appealed to in the skeptical argument itself, that degree of certainty varies inversely with the length of chains of reasoning. From this loss of vivacity it follows that any idea which is arrived at through a particularly long and complicated chain of reasoning cannot possess very much of the force and vivacity had by the original impression. This holds true for intermediate ideas in a train of thought as well as for conclusions.

Now, the ideas which arise at later steps of the skeptical argument—ideas about, for instance, the reliability of our judgments of accuracy of inference—are themselves arrived at only after a particularly long and complicated chain of reasoning. Hence these intermediate ideas cannot themselves possess any great measure of force and vivacity:

... after the first and second decision; as the action of the mind becomes forc'd and unnatural, and the ideas faint and obscure; tho' the principles of judgment, and the ballancing of opposite causes be the same as at the very beginning; yet their influence on the imagination, and the vigour they add to, or diminish from the thought, is by no means equal. 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; nor does the imagination feel a sensation, which holds any proportion with that which arises from its common judgments and opinions (I iv 1; 185).

Since the intermediate ideas involved in our reasoning at late stages of the skeptical argument lack any significant amount of force and vivacity, so must the conclusions of reasoning at that

stage. Due to a lack of force and vivacity in the entire reasoning process of the late stages of the skeptical argument, however, the reasoning fails to move us entirely. Thus the entire chains of reasoning at the later steps of the skeptical argument, fail to have any effect on our beliefs whatsoever.

It might be objected here that the complete lack of force and vivacity of the late stages could just as well be described as lending no probability to the concluding idea – the idea of imminent rain – as rendering the entire process of reasoning doxastically ineffective. However, given the obscurities and difficulties involved in making sense of Hume’s notion of force and vivacity, some such problems are to be expected. ‘Force and vivacity’ is called upon to do a number of things – distinguish between ideas and impressions; distinguish between entertaining an idea and believing it; and explain different degrees of probability – but it is not clear how one quality admitting only of linear variation, as force and vivacity is commonly construed, could do all such things.

However, it has been persuasively argued<sup>13</sup> that force and vivacity admits of more than linear variation; force and vivacity, far from being an intrinsic property of individual ideas or impressions, should be construed functionally, in terms of the effect of having the idea or impression in question on other mental operations. (While Hume seems fairly clearly to be precluded from explicating force and vivacity in terms of differences in the *causes* of ideas, that is, from going outside the head of the subject of psychology, there seems to be nothing to prevent him from explicating the difference in terms of *effects*.)

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<sup>13</sup> By Stephen Everson, in “The Difference between Feeling and Thinking”: *Mind*, 1988.

If this is indeed correct, it gives Hume more resources for explanation. The over-subtlety of the reasoning at late stages of the skeptical argument, renders the ideas considered lacking in force and vivacity just in that they cease to affect belief (or for that matter, action), while they continue to be able to be brought into consideration. While we might wish Hume to give us more of an account of the different sorts of functioning of ideas and impressions brought together under the umbrella of force and vivacity, it is not required in order for us to grant the point that skeptical reasoning fails to be compelling beyond a certain point. For however the explanation goes,<sup>14</sup> it seems clear that Hume is right in taking it as simply a *fact* that skeptical reasoning fails to compel indefinitely. In this, the skeptical argument is similar to a number of other, abstruse or philosophical arguments in which “the straining of the imagination always hinders the regular flowing of the passions and sentiments” (I iv 1; 185). Thus we have ample reason for asserting that

Nature breaks the force of all skeptical arguments in time, and keeps them from having any considerable influence on the understanding (I iv 1; 187).

Thus, although the mechanism is not ideally clear, Hume has established his intended conclusion, that all probable reasoning is derived solely from custom and imagination rather than from reason.

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<sup>14</sup> There is some reason to believe that Hume himself felt less than satisfied with the details of the account, due to his recourse to invoking the movements of the animal spirits in explaining why the skeptical argument does not compel belief (I iv 1; 185). For while Hume makes a number of references to the animal spirits in the course of the *Treatise*, his one methodological discussion of such explanations makes clear that he disapproves of recourse to the animal spirits in philosophical investigations such as his own (I ii 5; 60). Thus Hume’s recourse to the animal spirits seems somewhat in violation of the ‘first maxim’ (Ibid.), that “nothing is more requisite for a true philosopher, than to restrain the intemperate desire of searching into causes”; this can only indicate a certain unease with the precise details of the account.

## VI

One might now wonder—since Hume in effect predicts and explains the inability of the skeptical argument to convince us to abandon belief altogether *before* explicitly presenting the argument—what the normative force Hume tends to ascribe to that argument could possibly be. Given Hume’s conclusions in Part III of Book I, one might reasonably wonder what it could mean to suggest, as the skeptical argument about reason seems to, that we should believe otherwise than we do. There is one fairly short—and not entirely satisfying—answer that has already been suggested.

It is clear that we *do* often have a desire for greater certainty in our probable beliefs than they possess. This is shown by our susceptibility to the skeptical argument; by the practice of mathematicians to have their work checked by others (180)<sup>15</sup>; by the fact that men of great sense and experience are uncertain of their own reliability (182); and so on. Once we have given in to this desire and started to consider the reliability of our faculties, it is irrational of us to ever cease engaging in such considerations, since Hume takes himself to have shown that the longer we engage in such considerations, the lower our degree of certainty becomes. That is, it is irrational of us, in a purely instrumental sense, to stop considering the reliability of our faculties once we have started, for we get continually further and further away from the greater certainty which was our original goal.

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<sup>15</sup> Accepting the conclusion of the first part of I iv 1, that all demonstration degenerates into probability.

There is also, however, a rather longer answer which begins by considering the role of general rules derived from reflection on the nature of the understanding – rules, such as the maxims of Hume’s philosophy, which we arrive at as a result of reflection on the operation of the human mind. Recall that the skeptical argument of I iv 1 is, so far as we can judge, entirely sound and persuasive; however, it fails to have its proper effect on us, given the inability of our imaginations to engender belief in the skeptical conclusion. This disagreement between our rational judgements and our actual capabilities of belief ought, however, to be surprising at first. Given Hume’s thesis that reasoning itself is solely a product of custom and imagination, it seems as if it should be impossible for our judgements about what we should believe, to do anything other than concur with our actual beliefs. While Hume does not address this sort of worry in I iv 1, he anticipates worries about the opposition of judgement and imagination in an earlier passage:

According to my system, all reasonings are nothing but the effects of custom; and custom has no influence, but by invivening the imagination, and giving us a strong conception of any object. It may, therefore, be concluded, that our judgment and imagination can never be contrary, and that custom cannot operate on the latter faculty after such a manner, as to render it opposite to the former. This difficulty we can remove after no other manner, than by supposing the influence of general rules (I iii 13; 149).

General rules – such as the “Rules by which to judge of causes and effects” and the rules discussed in “Of unphilosophical probability” – are ascribed by Hume to the understanding and,

indeed, seem to be constitutive of the understanding.<sup>16</sup> For, Hume goes on to tell us, in cases of conflict,

The general rule is attributed to our judgment, as being more extensive and constant; the exception to the imagination, as being more capricious and uncertain (Ibid).

When there is a contrariety in our thoughts, we deal with it by assigning the conflicting beliefs to different faculties or aspects of the imagination. We assign the general habits, or rules, to the faculty of reason or judgment, apparently since we take it to be definitive or constitutive of that faculty to be ‘extensive and constant’; those exceptions to the general rules which have an influence on our beliefs, we take to be in the province of imagination.

General rules are constitutive of those propensities of thought which we ascribe to the understanding rather than the imagination; thus, it cannot help but count as rational to act in accordance with general rules. And this way of dividing up principles between reason and imagination makes sense, in Hume's system, because acting in accordance with general rules conveys benefits upon us and, indeed, is necessary for the conduct of life:

... it may be objected, that the imagination, according to my own confession, being the ultimate judge of all systems of philosophy, I am unjust in blaming the ancient philosophers for making use of that faculty ... In order to justify myself, I

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<sup>16</sup> This needs to be qualified: in fact, Hume appears to use the term ‘general rule’ in two distinct ways. The first sense of ‘general rule’ is the sense of rules of the understanding, which are what I am concerned with, and which are attributed to the understanding. The second sort derive from the imagination’s propensity to generalize – thus resulting in such judgments as “An Irishman cannot have wit, and a Frenchman cannot have solidity” – and are attributed by Hume to the imagination. See T.K. Hearn, “‘General Rules’ in Hume’s *Treatise*”: *Journal of the History of Philosophy*, October

must distinguish in the imagination betwixt the principles which are permanent, irresistible, and universal ... and the principles, which are changeable, weak, and irregular ... The former are the foundation of all our thoughts and actions, so that upon their removal human nature must immediately perish and go to ruin. (I iv 4; 225).

It is reasonable to act in accordance with general rules because it is required for successful living; thus, we assign the general rules – the more helpful propensities of the mind – to the understanding as the faculty whose dictates must count as rational.

Now, it is a general rule which requires us to enter into the skeptical argument, and thus begin the process of correcting the judgments of the understanding. Hume invokes one such rule when he states that

In every judgment, which we can form concerning probability, as well as concerning knowledge, we ought always to correct the first judgment ... by another judgment, deriv'd from the nature of the understanding (I iv 1; 181-182).

This must remind one of the claim that “general rules ... are form'd on the nature of our understanding” (I iii 13; 149).

Taking into account that she has made many errors in the past, and wishing to avoid them as much as possible in the future, the wise person puts forth for herself that in making judgments she should always take her own fallibility into account. This rule is, at first, both fully natural

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1970, for a clear explication of the difference between the two types and the centrality of general rules – especially rules of the understanding – all throughout the *Treatise*.



and automatic – Hume tells us that probability is “liable to ... correction by a reflex act of the mind” – and normative – “we are oblig’d by our reason to add a new doubt” (I iv 1; 182). This is in accordance with the dual nature of general rules, which arise out of the imagination, as does everything concerning matters of fact, but gain normativity through practical benefit and through constituting the understanding, or rational faculty. Thus we appear to have two, related, sources for the normative force of the skeptic’s request that we revise our beliefs, taking our fallibility into account: the practical benefit of such self-reflexivity as a general course of action, and the fact that such consistent self-reflection is constitutive of rational thought.

The first source of normativity – the fact that we are able to pick out some of our operations of mind as being more stable and general than the others, and decide that those are the tendencies which we ought to follow – seems unproblematic. It may not strike us as giving rise to any very impressive sort of normativity; but it is quite clearly adequate to the purposes of the skeptical argument about reason. For all we need, in that case, is a way of understanding our obligation to continue questioning the reliability of our judgments, once we have begun to do so. A requirement on reasoning that it be consistent and universal – i.e. that rules be general – seems sufficient to do that. For showing that, if reasoning must be consistent and universal then the only thing which can be consistently and universally recommended is the cessation of all belief, seems as if it should be quite sufficient to count as skepticism about reason. It would, that is, be quite enough to suggest that we ought not be too impressed with those general rules of mind we have established for ourselves.

The second source of the normative force of general rules – their practical benefit – is somewhat more troublesome. For in the case of the skeptical argument about reason, it is

*against* our interests to follow the rule in question to its logical end: this would result in the “total extinction of belief and evidence”, making the conduct of life impossible. Thus, one might think, it is incompatible to ascribe to Hume both the claim that general rules are helped to gain their normative force by their practical benefit, and the claim that it is a general rule which requires us to begin reassessing our probable beliefs.

However, to worry about this is to construe general rules as inviolable dictates from outside, not as maxims which we derive from reflection on the nature of the understanding. For one of the items of knowledge we gain from reflection on the nature of the understanding is, as I have argued, that any such sequence of self-correcting doubts (like any overly subtle and philosophical reasonings) must necessarily lose all force quite quickly.<sup>17</sup> Thus we have no reason to worry, in accepting self-correction as a general rule, that we have thereby eliminated belief. Although self-correction would - if it continued as it began - make belief impossible, we know that it will not continue as it began, and thus we need not worry about entering into a process of self-correction. All that will happen is that we will carry out the process of self-correction a few times – and that, Hume tells us, is surely a good idea. There is no inconsistency between the claims that a general rule requires reassessing probable beliefs, that such reassessment would if continued indefinitely extinguish belief, and that following general rules is beneficial to us. For the same source from which the general rule arises – reflection on the nature of the understanding – also tells us that the process of self-correction will not in the end extinguish belief.

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<sup>17</sup> Note that this observation was made in “Of Unphilosophical Probability”; this shouldn’t itself be construed as normative, although normative rules must take it into account.

This account has been rather fast, and one might still worry whether the sort of normativity which general rules give rise to is really sufficient to make sense of the obligations of reason upon us. However, worries about normativity arise all the way through our reading of Hume, and it has not been my attempt to resolve them in this short space of time. Rather, what I hope to have been gained from this section is merely further reinforcement of my thesis that the concerns of I iv 1 are more central to Hume's concerns in the *Treatise* as a whole than often thought; and some reason to think that the normativity problem for the skeptical argument which my interpretation raises is not, in fact, a special concern – that is, not a problem raised by my interpretation alone – but something implicit all throughout book I of the *Treatise*.

In conclusion, then, I have argued as follows: Hume's notion of probable reasoning is best seen as a process of linking ideas in terms of the relation of causality, and his notion of probability in terms of the extent to which this process lends force and vivacity to the concluding idea. Hume provides a psychological account of the way in which degrees of force and vivacity of ideas vary in proportion to relative frequencies in the events which are the objects of those ideas; this account has, among other things, the consequence that the probability of any given belief must decrease as the process of reasoning by which it was arrived at becomes longer and more complicated. Given this consequence, a skeptical argument to the conclusion that we should have no probable beliefs at all can be constructed. While this argument fails to convince us to abandon belief, it is *rationally* quite compelling, and thus shows us two things. First, it confirms Hume's thesis that belief is not a product of reason; and second, it points us toward one

way of thinking about Hume's notion of the normativity of reason which is relied upon in the skeptical argument.<sup>18</sup>

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