Hume's Skeptical Crisis ⁜

A Textual Study

ROBERT J. FOGELIN

OXFORD
UNIVERSITY PRESS

2009

Contents

Texts and Citations xvii

Introduction: The Interpretive Problem 3

1 Of Knowledge and Probability 11

A Quick Tour of Part 3, Book 1 11

Section 1. Of knowledge 11

Section 2. Of probability; and of the idea of cause and effect 13

Section 3. Why a cause is always necessary 14

Section 4. Of the component parts of our reasonings concerning causes and effects 15

Section 5. Of the impressions of the senses and memory 15

Section 6. Of the inference from the impression to the idea 16

Section 7. Of the nature of the idea, or belief 18

Section 8. Of the causes of belief 19

Section 9. Of the effects of other relations, and other habits 20

Section 10. Of the influence of belief 20

Section 11. Of the probability of chances 21

Section 12. Of the probability of causes 21

Section 13. Of unphilosophical probability 22

Section 14. Of the idea of necessary connexion 22
Section 15. Rules by which to judge of causes and effects 27
Section 16. Of the reason of animals 28

2 Hume on Unphilosophical Probabilities 29
Unphilosophical as Opposed to Philosophical Probabilities 29
Sources of Unphilosophical Probabilities 30
The effect of the remoteness of the event 30
The effect of the remoteness of the observation 31
Reiterative diminution 31
Prejudice based on general rules 35
Conflicts within the Imagination and Skepticism 37

3 Hume's Skepticism with Regard to Reason 39
The Turn to Skepticism 39
The Basic Argument 40
Reducing knowledge to probability 41
The regression argument 43
The principle of reiterative diminution 44
Hume's Response to His Skeptical Argument 48
Peritrope 52

4 Of Skepticism with Regard to the Senses 55
Hume's Turnabout with Regard to the Senses 55
The Organization of Section 2 57
The Causes of Our Belief in the Existence of Bodies 59
The senses not the source of this belief 60
Reason not the source of this belief 63
The Operations of the Imagination in Forming This Belief 65

Hume's informal statement of his position 66
Hume's systematic statement of his position 69
The Philosopher's Double-Existence. Theory of Perception 78
The Pyrrhonian Moment 82
A Concluding Note 83

5 Of the Ancient and Modern Philosophy 85
Reasons for Examining Ancient and Modern Philosophical Systems 85
Of the Ancient Philosophy (Section 3) 85
The false belief in the continued identity of changing objects 87
The fiction of underlying substance, or original first matter 89
The false belief in the simplicity of objects 90
The fiction of a unifying substance 93
The incomprehensibility of the peripatetic system 93
Skeptical implications 94
Of the Modern Philosophy (Section 4) 96
Against the distinction between primary and secondary qualities 97
Another Pyrrhonian moment 99

6 The Soul and the Self 101
Of the Immateriality of the Soul (Section 5) 101
Setting the dialectical stage 101
The soul as substance 102
The problem of local conjunction 104
Soul–body interaction 107
On proofs of immortality 108
Of Personal Identity (Section 6) 109

Basic criticisms 110
Account of the fiction of personal identity 112
Disputes about identity as merely verbal 116
The reservations in the appendix 117

7 The Conclusion of Book 1 125
A Gloomy Summation of Skeptical Results 125
What Is to Be Done? 130
Being a Philosopher on Skeptical Principles 132

8 Two Openings and Two Closings 139
The *Treatise* and the *Enquiry* on Skepticism 139
The Opening of the *Treatise* 140
The Opening of the *Enquiry* 140
The Response to Skepticism in the *Enquiry* 144
The Science of Human Nature in the *Enquiry* 146
The Role of Skeptical Arguments in the *Enquiry* 149
Skepticism concerning the senses 149
Skepticism concerning reason 151
Skepticism concerning moral reasoning 152
Pyrrhonism and Mitigated Skepticism 155

Notes 159
Works Cited or Mentioned 165
Index 167

Introduction ∷ The Interpretive Problem

How does Hume's naturalism—his attempt "to introduce the experimental method of reasoning into moral subjects"—square with what seem to be his strong skeptical commitments? On the face of it, these two aspects of his philosophy appear to be at odds with one another. For example, in a number of places Hume holds that there are no rational grounds for believing that the regularities that have held in the past will continue to hold in the future; that in turn seems to show that the inductive inferences he employs in pursuit of his science of human nature are themselves baseless. This conflict is so obvious that even philosophically unsophisticated readers often recognize it. Hume, however, does not seem particularly concerned about this apparent conflict between his inductive skepticism and his commitment to a science of human nature. In the *Treatise of Human Nature*, a skeptical argument is used to reject *reason* (in a wide sense) as the source of causal inferences, so that he can replace it with the associative operations of the *imagination*. In the *Enquiry Concerning Human Understanding*, Hume celebrates this relocation, telling us that "it is . . . conformable to the ordinary wisdom of nature to secure so necessary an act of the mind, by some instinct or mechanical tendency" (*EHU*, 45/55). As we shall see, skeptical doubts are the source of deep disquietudes that emerge in the concluding section of the first book of the *Treatise*, but his inductive skepticism—though it has troubled many others—seems not to have troubled Hume.

A dramatic way of presenting the tension between Hume's naturalism and his skepticism is to compare two passages: one from the introduction to the *Treatise*, the other from the closing section of book 1. Hume launches the *Treatise* with swagger:

> 'Tis evident, that all the sciences have a relation, greater or less, to human nature; and that however wide any of them may seem to run from it, they still return back by one passage or another. Even *Mathematics*, *Natural Philosophy*, and *Natural Religion*, are in some measure dependent on the science of MAN; since they lie under the cognizance of men, and are judg'd of by their powers and faculties.
>
> Here then is the only expedient, from which we can hope for success in our philosophical researches, to leave the tedious lingring method, which we have hitherto follow'd, and instead of taking now and then a castle or village on the frontier, to march up directly to the capital or center of these sciences, to human nature itself; which being once masters of, we may every where else hope for an easy victory. From this station we may extend our conquests over all those sciences, which more intimately concern human life, and may afterwards proceed at leisure to discover more fully those, which are the objects of pure curiosity. There is no question of importance, whose decision is not compriz'd in the science of man; and there is none, which can be decided with any certainty, before we become acquainted with that science. In pretending therefore, to explain the principles of human nature, we in effect propose a compleat system of the sciences, built on a foundation almost entirely new, and the only one upon which they can stand with any security. (4/xv)

In sharp contrast to this brave beginning, in the closing section of book 1 of the *Treatise* we find the following forlorn skeptical plaint:

> But what have I here said, that reflections very refin'd and metaphysical have little or no influence upon us? This opinion I can scarce forbear retracting, and condemning from my present feeling and experience. The *intense* view of these manifold contradictions and imperfections in human reason has so wrought upon me, and heated my brain, that I am ready to reject all belief and reasoning, and can look upon no opinion even as more probable or likely than another. Where am I, or what? From what causes do I derive my existence, and to what condition shall I return? Whose favour shall I court, and whose anger must I dread? What beings surround me? and on whom have I any influence, or who have any influence on me? I am confounded with all these questions, and begin to fancy myself in the most deplorable condition imaginable, inviron'd with the deepest darkness, and utterly depriv'd of the use of every member and faculty. (175/ 268–69)

This study is an attempt to answer two questions: First, how did Hume's pursuit of his "science of man," so confidently begun at the start of the *Treatise*, land him in philosophical despair? Second, how does he attempt to extract himself from this melancholy state?

It is important not to write off Hume's expressions of despair as mere histrionics. As Hume comes to see, his pursuit of a science of human nature has led him into a skepticism that subverts the entire enterprise. Furthermore—though this will have to be shown—he finds himself completely incapable of presenting arguments that will refute the skeptical challenges he himself has produced. If he

is going to find a way out of his intellectual impasse, it will have to come from the nonrational side of human nature.

At the close of book 1 of the *Treatise*, Hume suggests that a reliance on common (vulgar) opinions can provide a way out of his difficulties. As we shall see, his suggestions in the *Treatise* seem tentative and not obviously up to the job he assigns to them. Perhaps reflecting dissatisfaction with his previous treatment of the threat of radical skepticism, Hume returns to this topic in the opening section of the *Enquiry Concerning Human Understanding*, where he confronts the challenge anew. Then, in the closing section of the *Enquiry*, he offers a remarkable response to it: When the destructive mechanisms of Pyrrhonism—Hume's label for radical skepticism—are counterbalanced by the mechanisms that produce common (vulgar) belief, then the mind, as a result of a vector of these two opposing forces, naturally settles into the standpoint of a mitigated and moderate skepticism. This is Hume's final response to the radical skepticism that seemed to overwhelm him in part 4, book 1 of the *Treatise*.

Countering radical skepticism by replacing it with a more moderate or mitigated skepticism is not, however, cost-free. Hume's new modesty carries with it a sharp curtailment in the pretensions of his science of human nature. Where Hume previously spoke of producing "a compleat system of the sciences, built on a foundation almost entirely new, and the only one upon which they can stand with any security" (4/xv), he now speaks circumspectly of producing "reflections of common life, methodized and corrected" (*EHU*, 121/162)

As this development unfolds, there are four contrasting *Humes*, or at least four contrasting *voices* of Hume, inhabiting Hume's writing. The first is the confident Hume, projector of a complete science of human nature. The second is the melancholy Hume, wracked

with Pyrrhonian doubts he seems incapable of shaking. Third, we have the chastened Hume, modest in his expectations and reasonably content with his lot. There is also a fourth voice or standpoint found in Hume's writings, important but easily overlooked. This is the standpoint of the ordinary people engaged in the affairs of daily life: the standpoint of the vulgar.

Which standpoint represents the real Hume? As I read the text, all four standpoints are real in representing the way matters strike Hume when operating at a particular level of reflection. At the start of the *Treatise*, and well into it, Hume is an enthusiast for the new science of human nature he is developing. Hume's standpoint undergoes a radical skeptical transformation in response to the appalling things his pursuit of the science of human nature reveals to him. This is full-throated skepticism. The third standpoint emerges from Hume's recognition that radical skepticism cannot be disposed of by employing arguments against it. When matters are placed on an argumentative basis, the Pyrrhonist always wins. For Hume, the slide into radical skepticism can only be countered by yielding in some measure to our vulgar propensity to believe things that are not based on sound arguments and, more deeply, even things that run counter to sound arguments.

The textual study that follows is intended to show the basis for the broad claims sketched earlier. It largely takes the form of a narrative. With very few exceptions, I present matters as they actually unfold in the text. Given Hume's shifts in standpoint, a narrative approach seems virtually forced on us. It will operate at two interrelated levels: one *global*, the other *local*. A global interpretation concentrates on major aspects of a philosophical position and indicates how they are interrelated. Dealing with Hume's writings involves, among other things, keeping track of where Hume is in the dialectical—dare I use the word?—unfolding of his position.

Local interpretation involves a close reading of texts in an effort to provide a check on the global interpretation, while at the same time enriching its content. Grotesquely bad readings of a text usually arise from violations of the principle of global interpretation—often made in an effort to square a position under examination with contemporary philosophical fashions. Shallow readings usually result from neglecting the details of the text where, as it is said, God—sometimes the Devil—is said to reside. To borrow phrasing from Kant, global interpretation without local interpretation is empty, local interpretation without global interpretation is blind.

Because I will be engaged in a close textual study, I will, for the most part, stay within the margins of the text and cite it extensively. I will not be much concerned with the sources of Hume's ideas and only occasionally compare Hume's claims with those made by other philosophers. I will make no effort to show that Hume's writings are relevant to contemporary philosophical debates. I think they are, but it seems patronizing to Hume to insist on this. I will not be much involved with the rich and impressive secondary literature on Hume that has appeared in recent decades. In dealing with the secondary literature, one is again dealing with texts—texts that often refer to other texts and often present interpretive problems of their own. I have not become deeply involved in the secondary literature because I do not see how this can be done in a fair and accurate way without interrupting the flow of the narrative I am presenting.

I would, however, suggest three works I find impressive that can be read profitably in conjunction with this work. Barry Stroud's *Hume*, among its many virtues, will prove very helpful in filling out my whirlwind account of book 3 of the *Treatise* that I present in Chapter 1. David Owen's essay "Scepticism with Regard to Reason" offers a rich and scholarly examination of the subject that

is in some ways similar to mine and in some ways different. Finally, I recommend Don Garrett's *Cognition and Commitment in Hume's Philosophy* for a treatment of Hume's skepticism that differs in fundamental ways from my own.

In this work I make no claims for originality on particular points. Perhaps there is some novelty in the way I tell the overall story.

Chapter 1 ⁜ Of Knowledge and Probability

The central claim I will attempt to establish in this work is that the skeptical Hume of part 4 of the *Treatise* emerges naturally out of Hume's unfettered pursuit of the naturalistic program of part 3. To this end, I will offer a sketch, a précis, or a whirlwind tour of what Hume thinks he has accomplished in part 3. I will cite Hume's conclusions and exert restraint—though not total restraint—in commenting on the strength of the arguments he presents in their behalf. With this broad sketch in hand, I will then turn to part 4 and examine the skeptical consequences that emerge when Hume applies his naturalistic account of belief-formation to philosophical beliefs themselves. Part 3 is titled "Of knowledge and probability." One section is dedicated to a discussion of knowledge, the remaining fifteen to probability and related topics.

A Quick Tour of Part 3, Book 1

Section 1. Of knowledge

At the opening of this section, Hume repeats his list of what he calls philosophical relations that he had originally presented and briefly discussed in part 1, section 5. They are

> *resemblance, identity, relations of time and place, proportion in quantity or number, degrees in any quality, contrariety,* and *causation*. These relations may be divided into two classes; into such as depend entirely on the ideas, which we compare together, and such as may be chang'd without any change in the ideas. (50/69)

He declares that "only four, which depending solely upon ideas, can be the objects of knowledge and certainty. These four are *resemblance*, *contrariety*, *degrees in any quality*, and *proportions in quantity or number*" (50/70). The four relations that "depend entirely on the ideas, which we compare together," are the basis for the domain of knowledge; the remaining three (relations of time and place, identity, and causation), which do not have this feature, are the concern of the domain of probability.

Hume makes quick work of the domain of knowledge. He says that three of these relations—resemblance, contrariety, and degrees in any quality—are matters of *intuition* rather than demonstration. Whether they hold or not can be established by merely inspecting the ideas themselves. Arithmetic contains intuitive truths, but contains demonstrative truths as well. This is in virtue of what has come to be known as Hume's Law (one-to-one correlation), which provides a "precise standard, by which we can judge... equality" (51/71). For want of a similarly precise standard, geometry can provide nothing better than what we might call damn-near demonstrative truths.

Given its importance for his project as a whole, this discussion of intuitive and demonstrative knowledge is surprisingly brief and underdeveloped. It is striking that Hume expresses no dissatisfaction with it and gives no forewarning of the assault on both intuitive and demonstrative knowledge that awaits the reader in the opening section of book 1, part 4.

Section 2. Of probability; and of the idea of cause and effect

Hume's treatment of knowledge is almost peremptory; his treatment of probability is elaborate and complex. There are, according to Hume, three kinds of relations that do not generate knowledge, that is, intuitive and demonstrative truths. They are *identity*, *relations of time and place*, and *causation*. Each gets a part of book 1 dedicated to it. Relations of time and place are examined in part 2; causation is examined in part 3; and, setting aside its opening and closing sections, identity is a central topic of part 4.[1] I will quickly run through the basic moves concerning causation and probability as they unfold in book 1, part 3 of the *Treatise*.

Section 2 raises a question that will not be answered until section 14: How are we to define the relationship between a cause and an effect? This section initiates the quest for an answer and moves through the following stages:

1. An examination of a particular instance of causation reveals only two relationships: contiguity and priority.
2. But, according to Hume, these two relations by themselves do not provide an adequate account of causation: "Shall we then rest contented with these two relations of contiguity and succession, as affording a complete idea of causation? . . . There is a NECESSARY CONNEXION to be taken into consideration; and that relation is of much greater importance, than any of the other two above mention'd" (55/77).
3. But an inspection of the objects themselves reveals nothing corresponding to the idea of a necessary connection, so again an impasse has been reached.

4. At this stage of his investigations, Hume seems explicitly committed to the idea that a necessary connection is an essential component of a causal relation, but so far he has been unable to give an adequate account of this idea. In an attempt to find another way of approaching this problem, Hume proposes to beat about in two neighboring fields, asking:

> *First*, for what reason we pronounce it *necessary*, that every thing whose existence has a beginning, shou'd also have a cause?
>
> *Secondly*, why we conclude, that such particular causes must *necessarily* have such particular effects; and what is the nature of that *inference* we draw from the one to the other, and of the *belief* we repose in it? (55/78)

As a result of these two expeditions, Hume will reverse himself, and instead of holding that the idea of a necessary connection is an essential component of our idea of a causal relation, he will hold that the idea of a necessary connection is an attendant product of causal reasoning.

Section 3. Why a cause is always necessary

To state the question more fully, what is the basis for thinking that everything whose existence has a beginning should also have a cause for this beginning? Hume argues that this cannot be justified as either a demonstrative or an intuitive truth for the following reason:

> As all distinct ideas are separable from each other, and as the ideas of cause and effect are evidently distinct, 'twill be easy for us to conceive any object to be non-existent this

> moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle. The separation, therefore, of the idea of a cause from that of a beginning of existence, is plainly possible for the imagination; and consequently the actual separation of these objects is so far possible, that it implies no contradiction nor absurdity; and is therefore incapable of being refuted by any reasoning from mere ideas; without which 'tis impossible to demonstrate the necessity of a cause. (56/79)

With demonstrative and intuitive reasoning eliminated, it seems that the belief in question must have its basis in experience. But instead of pursuing this topic directly, Hume turns his attention to the second neighboring field and asks "why we conclude, that such particular causes must necessarily have such particular effects."

Section 4. Of the component parts of our reasonings concerning causes and effects

Hume argues that causal reasoning must have as its first component some initial experience, for without an origin in an initial experience causal reasoning would be no more than hypothetical.

Section 5. Of the impressions of the senses and memory

Hume lays out the component parts of his program:

> Here . . . we have three things to explain, viz. *first*, The original impression. *Secondly*, The transition to the idea of the connected cause or effect. *Thirdly*, The nature and qualities of that idea. (59/84)

The remainder of the section discusses the difference between memory and imagination, with some qualifications, drawing the distinction in terms of vivacity.

Section 6. Of the inference from the impression to the idea

This section demands special attention because it contains, in a complex form, a line of reasoning that will later emerge (in the *Abstract* and the *Enquiry Concerning Human Understanding*) as Hume's skeptical argument concerning induction.

Earlier, Hume was stymied in his attempt to discover anything corresponding to a necessary connection between causally related events. All he could find of significance are the relations of priority and contiguity. Now, however, when he turns his attention to the specific assignment of causes and effects, he hits on the further idea that events that are causally connected are *constantly conjoined* in terms of priority and contiguity. This newly discovered notion of constant conjunction will play a central role in Hume's first definition of cause, but his initial reaction to it is negative.

> To tell the truth, this new-discover'd relation of a constant conjunction seems to advance us but very little in our way. For it implies no more than this, that like objects have always been plac'd in like relations of contiguity and succession; and it seems evident, at least at first sight, that by this means we can never discover any new idea, and can only multiply, but not enlarge the objects of our mind. . . . From the mere repetition of any past impression, even to infinity, there never will arise any new original idea, such as that of a necessary connexion; and the number of impressions has in this case no more effect than if we confin'd ourselves to one only. (62/88)

The expression "at first sight" suggests that Hume is not really committed to the idea that nothing new can emerge from the mere repetition of the same ideas, and, in fact, he will reject it. Hume also drops a hint of even deeper significance for understanding his ultimate position concerning the relationship between necessary connections and causal inferences: "Perhaps 'twill appear in the end, that the necessary connexion depends on the inference, instead of the inference's depending on the necessary connexion" (62/88). This is just how things will turn out, but it can only be shown after Hume gives his account of the "transition to the idea of the connected cause or effect," the second component in the program announced in the previous section.

Hume first attempts to show that causal inferences are not the product of our rational faculties. The initial move, and the key move, is this:

> [If reason produced causal inferences] it wou'd proceed upon that 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*. (62/89)

The question now becomes: How can the principle that the course of nature continues always uniformly the same *itself* be justified? Given the architecture of Hume's position, there are only two options:

> In order therefore to clear up this matter, let us consider all the arguments upon which such a proposition may be suppos'd to be founded; and as these must be deriv'd either from *knowledge* or *probability*, let us cast our eye on each of these degrees of evidence, and see whether they afford any just conclusion of this nature. (62/89)

The first alternative is ruled out by the conceivability argument:

> There can be no *demonstrative* arguments to prove, *that those instances, of which we have had no experience, resemble those,*

> *of which we have had experience*. We can at least conceive a change in the course of nature; which sufficiently proves, that such a change is not absolutely impossible. To form a clear idea of any thing, is an undeniable argument for its possibility, and is alone a refutation of any pretended demonstration against it. (62/89)

The second alternative is eliminated by the argument from circularity:

> According to this account of things, which is, I think, in every point unquestionable, probability is founded on the presumption of a resemblance betwixt those objects, of which we have had experience, and those, of which we have had none; and therefore 'tis impossible this presumption can arise from probability. (63/90)

What we have, then, is a skeptical argument intended to show that there can be no justification of the principle that the course of nature continues always uniformly the same. For Hume, this provides a sufficient basis for saying that causal inferences are not the product of our rational faculties.

> When the mind, therefore, passes from the idea or impression of one object to the idea or belief of another, it is not determin'd by reason, but by certain principles, which associate together the ideas of these objects, and unite them in the imagination. (64/92)

Section 7. Of the nature of the idea, or belief

In section 5, Hume lays out a three-part program. The third component concerns "the nature and qualities of that idea" that is the product of a causal inference. For his purposes, it is important to draw a

distinction between merely entertaining an idea and having a belief. He does so by invoking the notion of vivacity. Beliefs are distinguished from mere ideas in virtue of their superior vivacity. With others, I find Hume's appeal to vivacity, if taken in any reasonably literal sense, unconvincing, almost unintelligible. I believe that Bismarck is the capital of North Dakota; I can also entertain the idea that Bismarck is the capital of South Dakota. Is the first thought more vivacious (lively, vivid) than the second? Not to me. Degrees of vivacity might better be taken as a metaphor for degree of belief instead of its basis.

Hume uses the notion of vivacity in an effort to give a causal account of belief-formation. For Hume, belief-formation is a suitable topic for his science of human nature—indeed, it is a central topic. Beliefs, according to Hume, arise, are strengthened, weakened, augmented, revised, rejected, and so on, all in accordance with causal laws. This is an important idea—more important than his use of vivacity to implement it. In what follows, however, I will simply accede to Hume's references to vivacity and treat them as placeholders for a causal account of belief-formation. Taken as a metaphor, vivacity is not all that bad.

Section 8. Of the causes of belief

This section presents what we might call Hume's theory of vivacity transfer. It is of central importance to Hume's naturalistic account of operations of the human mind.

> I wou'd willingly establish it as a general maxim in the science of human nature, *that when any impression becomes present to us, it not only transports the mind to such ideas as are related to it, but likewise communicates to them a share of its force and vivacity*. (69/98)

In a causal inference there is a twofold movement: When an event is experienced, the mind immediately envisages another event of the kind constantly conjoined with it. But the triggered idea does not simply pop into one's mind; it also inherits a portion of the vivacity of the triggering event.

In this section, Hume also invokes the notion of custom as an apt way of referring to the manner in which causal inferences are grounded:

> [From observation] I conclude, that the belief, which attends the present impression, and is produc'd by a number of past impressions and conjunctions; that this belief, I say, arises immediately, without any new operation of the reason or imagination. Of this I can be certain, because I never am conscious of any such operation, and find nothing in the subject, on which it can be founded. Now as we call every thing CUSTOM, which proceeds from a past repetition, without any new reasoning or conclusion, we may establish it as a certain truth, that all the belief, which follows upon any present impression, is deriv'd solely from that origin. (71–72/102)

Section 9. Of the effects of other relations, and other habits

This section examines the lesser influence of the other two principles of association—resemblance and contiguity—in transferring belief. It provides an account of why causal associations are, in general, stronger than the other two modes of association.

Section 10. Of the influence of belief

This complex and interesting section contains a series of reflections on the following fact:

> Pain and pleasure have two ways of making their appearance in the mind; of which the one has effects very different from the other. They may either appear in impression to the actual feeling and experience, or only in idea, as at present when I mention them. 'Tis evident the influence of these upon our actions is far from being equal. Impressions always actuate the soul, and that in the highest degree; but 'tis not every idea which has the same effect. (81/118)

Though it contains important material, most of what Hume says here bears more directly on topics discussed in books 2 and 3 of the *Treatise* than on our present topic, the character of causal reasoning.

Section 11. Of the probability of chances

In this section Hume uses the notion of dispersed vivacity to explain a priori probabilities. A crude example: We fully believe that, when cast, a six-sided die will come to rest on one of its six sides—not on an edge. We can say that the vivacity level for this claim is effectively *1*. On the assumption that the die is not loaded, there are six equally likely outcomes from casting the die, so the vivacity level for each face of the die coming up on top is *1/6*. This is the probability we will naturally assign to the possibility that the die will come up, say, *4*. This may not sound particularly plausible, but, as I have suggested elsewhere, the notion of vivacity transfer can be used to underwrite a standard probability calculus (Fogelin 1985, pp. 59–60).[2]

Section 12. Of the probability of causes

An application of the notion of dispersed vivacity is used to explain what we would call statistical probabilities. Very roughly, the distribution of vivacity reflects the relative frequency of the occurrence

of an event in a given setting. The more often *A* is followed by *B*, the greater the vivacity handed over by *A* to *B*, thus generating a greater degree of subjective probability that *B* will follow upon an occurrence of *A*.

Section 13. Of unphilosophical probability

Having completed his discussion of the probability of chances and the probability of causes, both of which, Hume tells us, "are receiv'd by philosophers, and allow'd to be reasonable foundations of belief and opinion" (97/143), he turns his attention to other kinds of probability that have not "had the good fortune to obtain the same sanction" (97/143). This section is important for seeing a fundamental feature of Hume's science of human nature: All beliefs, including the ill-formed, the fiction-ridden, and the just plain nutty, fall under its purview. Hume takes it to be one of the chief strengths of his position that it can explain the sources both of beliefs that are "respectable" and of those that are not. Included in the second category are many beliefs of philosophers—both ancient and modern. This, as we will see, is a central theme of part 4 of book 1. Given the importance of this section to this later part of the *Treatise*, I will dedicate a separate chapter to it.

Section 14. Of the idea of necessary connexion

After an eleven-section excursion through neighboring fields, Hume returns to the problem posed in section 2 concerning the status of a necessary connection. His line of march, as I understand it, runs as follows. In section 2 Hume takes it for granted that a necessary connection is an essential component of a causal relation. Presumably it serves to connect the cause with its effect and in that

way underwrites an inference from one to the other. Having shown (in section 6) that the inference from cause to effect cannot be the product of the operations of our rational faculties, the notion of a necessary connection is no longer burdened with the task of underwriting this inference. Hume is therefore free to treat the idea of a necessary connection as a *product* of this inference rather than as its *basis*. This is precisely what he concludes in the opening paragraph of section 14:

> After a frequent repetition, I find, that upon the appearance of one of the objects, the mind is *determin'd* by custom to consider its usual attendant, and to consider it in a stronger light upon account of its relation to the first object. 'Tis this impression, then, or *determination*, which affords me the idea of necessity. (105/156)

The text exhibits what has come to be known as a Euthyphro choice: Do we draw inferences from cause to effect because we think they are necessarily connected, or do we think that they are necessarily connected because we draw inferences from one to the other? For what I take to be dialectical reasons, Hume starts out (seemingly) adopting the first option, then ends up adopting the second, more daring, option. In the *Treatise*, Hume is fond of such reversals. We will encounter other striking instances of it.

Having settled the status of the idea of a necessary connection, Hume then expresses his concern that his argument, being so obviously correct, might not be appreciated for its depth and importance.

> This evidence both in the first principles, and in the deductions, may seduce us unwarily into the conclusion, and make us imagine it contains nothing extraordinary, nor worthy of our curiosity. But tho' such an inadvertence may facilitate the reception of this reasoning, 'twill make it be the more easily

> forgot; for which reason I think it proper to give warning, that I have just now examin'd one of the most sublime questions in philosophy. (105/156)

Hume therefore allots another thirteen pages to an expansion of his basic argument concerning our idea of a necessary connection. There is some interesting material in these pages, including:

> Thus as the necessity, which makes two times two equal to four, or three angles of a triangle equal to two right ones, lies only in the act of the understanding, by which we consider and compare these ideas; in like manner the necessity or power, which unites causes and effects, lies in the determination of the mind to pass from the one to the other. (112/166)

For Hume, the feeling of necessity that one has in thinking that $2 \times 2 = 4$ is the same feeling that one has that a heavy object will fall if it is released from a height. By modern standards—perhaps by the standards of Hume's time—this is a curious notion of necessity, but the text shows unambiguously that he is committed to it.

Hume's additional remarks on necessary connections also contain an important summary passage that confirms the interpretation of the text I have presented:

> 'Tis now time to collect all the different parts of this reasoning, and by joining them together form an exact definition of the relation of cause and effect, which makes the subject of the present enquiry. This order wou'd not have been excusable, of first examining our inference from the relation before we had explain'd the relation itself, had it been possible to proceed in a different method. But as the nature of the relation depends so much on that of the inference, we have been

> oblig'd to advance in this seemingly preposterous manner, and make use of terms before we were able exactly to define them, or fix their meaning. We shall now correct this fault by giving a precise definition of cause and effect. (114/169)

With the idea of a necessary connection now properly put in its place, Hume next proceeds to offer two definitions of cause, one treating causation as a *philosophical* relation, the other treating it as a *natural* relation.

> There may two definitions be given of this relation, which are only different, by their presenting a different view of the same object, and making us consider it either as a *philosophical* or as a *natural* relation; either as a comparison of two ideas, or as an association betwixt them. We may define a CAUSE to be "[a]n object precedent and contiguous to another, and where all the objects resembling the former are plac'd in like relations of precedency and contiguity to those objects that resemble the latter." If this definition be esteem'd defective, because drawn from objects foreign to the cause, we may substitute this other definition in its place, *viz.* "[a] CAUSE is an object precedent and contiguous to another, and so united with it, that the idea of the one determines the mind to form the idea of the other, and the impression of the one to form a more lively idea of the other." (114/169–70)

In case the reader has somehow missed it, Hume adds a paragraph driving home the point that neither definition makes reference to a necessary connection—thus reversing his original claim that a necessary connection is an essential element of a causal relation.

> If we define a cause to be, *an object precedent and contiguous to another, and where all the objects resembling the former are*

> *plac'd in a like relation of priority and contiguity to those objects, that resemble the latter*; we may easily conceive, that there is no absolute nor metaphysical necessity, that every beginning of existence shou'd be attended with such an object. If we define a cause to be, *an object precedent and contiguous to another, and so united with it in the imagination, that the idea of the one determines the mind to form the idea of the other, and the impression of the one to form a more lively idea of the other*; we shall make still less difficulty of assenting to this opinion. (115–16/172)

These two definitions are not without difficulties. The second, which treats causation as a natural relation, seems circular in employing the transparently causal term "determines" as part of the definition of a cause. This criticism can be avoided by treating the second definition (so-called) as a causal statement concerning causal belief-formation. There is nothing circular in that.

The first definition, where causation is treated as a philosophical relation, faces a more serious challenge. Some, and not merely a few, have taken Hume to be presenting a regularity definition of a causal *law*. On this reading—I'll call it the causal law reading—Hume's first definition is taken to mean:

> If every event of type *B* is uniquely paired with an event of type *A* that is prior to it and contiguous with it, then events of type *A* cause events of type *B*.

Thomas Reid interpreted Hume in this manner and produced the following counterexample to it:

> It follows from this definition of cause, that night is the cause of day, and day the cause of night. For no two things have more constantly followed each other since the beginning of the world. (Reid 334)

In fact, Hume's first definition is not correctly represented by the causal law reading and does not imply it. Hume's first definition concerns a *singular* causal statement of the form "*a* is the cause of *b*," and can be represented as follows:

> *a* is the cause of *b* if and only if *a* is contiguous and prior to *b*, and any object resembling *a* is similarly paired with an object resembling *b*, and any object resembling *b* is paired with an object resembling *a* that is contiguous and prior to it.

Hume's first definition, taken in this, the correct, way, is not subject to Reid's criticism. The point is this: Predicates used to pick out the cause and to pick out the effect need not fix the appropriate resemblance classes.[3] The definition may be subject to other criticisms—in particular, concerning the specification of the proper resemblance classes—but I will not go into this matter here.

Section 15. Rules by which to judge of causes and effects

Proponents of a naturalistic reading of Hume's *Treatise* point to this section as confirmation of their approach. They are right to do so. It opens with the following declaration:

> According to the precedent doctrine, there are no objects, which by the mere survey, without consulting experience, we can determine to be the causes of any other; and no objects, which we can certainly determine in the same manner not to be the causes. Any thing may produce any thing. . . . Since therefore 'tis possible for all objects to become causes or effects to each other, it may be proper to fix some general rules, by which we may know when they really are so. (116/173)

He then lays down eight rules that will serve as guides to empirical inquiry, telling his reader that they are of much more use than the elaborate systems put forward by "our scholastic head-pieces and logicians [who] show no such superiority above the mere vulgar in their reason and ability" (117/175). It is hard to see, as naturalistic interpreters point out, why Hume would find it useful to present such a system of rules for empirical inquiry if he harbored serious doubts about the very possibility of such inquiry.

Section 16. Of the reason of animals

Hume holds that higher animals are capable of reasoning of the same kind employed by human beings. The dog that "avoids fire and precipices, that shuns strangers, and caresses his master," he tells us, proceeds "from a reasoning, that is not in itself different, nor founded on different principles, from that which appears in human nature" (119/177). He thus claims that his theory can account for both human and animal reasoning and challenges those who reject it to attempt to do likewise:

> Let any philosopher make a trial, and endeavour to explain that act of the mind, which we call *belief,* and give an account of the principles, from which it is deriv'd, independent of the influence of custom on the imagination, and let his hypothesis be equally applicable to beasts as to the human species; and after he has done this, I promise to embrace his opinion. (119/178)

Passages like this, and many others of the same kind, seem to settle the interpretive dispute in favor of naturalism—unless, that is, we turn pages and enter the skeptical realm of part 4. In fact, as briefly noted, the skepticism that emerges in part 4 is anticipated in part 3 itself, in section 13, under the heading "Of unphilosophical probability." This is the subject of the next chapter.