
DAVID HUME

An Enquiry Concerning Human Understanding

There is a peculiarly painful chamber inhabited solely by philosophers who have refuted Hume. These philosophers, though in Hell, have not learned wisdom. They continue to be governed by their animal propensity towards induction. But every time that they make an induction, the next instance falsifies it. This, however, happens only during the first hundred years of their damnation. After that, they learn to expect that an induction will be falsified, and therefore it is not falsified until another century of logical torment has altered their expectation. Throughout all eternity surprise continues, but each time at a higher logical level.

(Bertrand Russell)

Who Was David Hume?

David Hume has been called the most important philosopher ever to have written in English. He was born to a strict Calvinist family in Edinburgh, Scotland's capital, in 1711, and spent his youth there and in Ninewells, his family's small land-holding near the border with England. Little is known of Hume's early childhood. His father, Joseph, died when he was two, and he was educated by his mother Katherine—who

never remarried—from an early age. He was a precociously intelligent and well-read child. As his mother put it, in her Scottish dialect: "Our Davie's a fine good-natured crater, but uncommon wake-minded." By the age of 16 he had begun composing his first philosophical master-work, *A Treatise of Human Nature*, on which he was to work, more or less continuously, for the next ten years.

Hume spent the years between 1723 and 1726 (i.e., between the ages of 12 and 15) studying a wide range of subjects at the University of Edinburgh but, like many students of that era, did not take a degree. His father and grandfather had both been lawyers, and his family expected him also to go into law, but, Hume later wrote, he found the law "nauseous" and discovered in himself "an unsurmountable aversion to every thing but the pursuits of philosophy and general learning."

Hume continued to read and write and, as a result of his feverish intellectual activity—motivated by his belief that he had made a major philosophical discovery—he suffered a nervous breakdown in 1734. He was forced to put philosophy aside for several months (during which time he attempted life as a businessman at

Bristol, in the employ of a Portsmouth merchant, but found that it didn't suit him) and then left Britain for France. There, in the following three years, living frugally in the countryside in Anjou (and using up all his savings), he completed most of his book.

Hume's *A Treatise of Human Nature* was published anonymously when he was 27. Hume later wrote, it "fell dead-born from the press, without reaching such

distinction as even to excite a murmur among the zealots." Hume's career as an intellectual and man of letters seemed to have ended before it had begun, and Hume blamed not the substance of his work but its style. "I was carry'd away by the Heat of Youth & Invention to publish too precipitately. So vast an Undertaking, plan'd before I was one and twenty, & compos'd before twenty-five, must necessarily be very defective. I have repented my Haste a hundred, & a hundred times." Hume returned to Scotland to live with his mother, and began to re-cast the material of the *Treatise* into two new books, which have become philosophical classics in their own right: *An Enquiry Concerning Human Understanding* (1748), and *An Enquiry Concerning the Principles of Morals* (1751). However both these books—though more successful than the *Treatise*—were slow to become influential during Hume's own lifetime.

Needing money, Hume got his first real job at the age of 34 and spent a well-paid year as tutor to a mad nobleman (the Marquess of Annandale). In 1746 Hume accepted a position as secretary to General St. Clair's military expedition to Canada (which never reached Canada and ended, oddly enough, with a brief attack on the French coast), and for two years after that was part of a secret diplomatic and military embassy by St. Clair to the courts of Vienna and Turin. During this period Hume was twice refused academic appointments at Scottish universities—first Edinburgh, then Glasgow—because of his reputation as a religious skeptic. Shortly

afterwards, between 1755 and 1757, unsuccessful attempts were made in Edinburgh to have Hume excommunicated from the Church of Scotland.

In 1752 Hume was offered the Keepership of the Advocates' Library at Edinburgh and there, poorly paid but surrounded by books, he wrote the colossal six-volume *History of England*, which (though unpopular at first) eventually became his first major literary success. At this time he also published a controversial *Natural History of Religion*.

In 1763 Hume was made secretary of the English embassy at Paris, where he found himself very much in fashion and seems to have enjoyed the experience. There he fell in love with, but failed to win the hand of, the Comtesse de Boufflers, the mistress of a prominent French noble. (Some unkindly suggest this might have been partly because at the time, when Hume was in his fifties, he had come to resemble "a fat well-fed Bernardine monk.") In 1767, back



in Scotland and now a fairly wealthy man, Hume was appointed an Under-Secretary of State, a senior position in the British civil service.

By the time Hume died in 1776, of cancer of the bowel, he had become respected as one of Europe's leading men of letters and a principal architect of the Enlightenment. His death gave him the reputation of something of a secular saint, as he faced his incurable condition with cheerfulness and resignation and refused to abandon his religious skepticism. In a short autobiography, written just before he died, Hume described his own character.

I was ... a man of mild dispositions, of command of temper, of an open, social, and cheerful humour, capable of attachment, but little susceptible of enmity, and of great moderation in all my passions. Even my love of literary fame, my ruling

passion, never soured my temper, notwithstanding my frequent disappointments. My company was not unacceptable to the young and careless, as well as to the studious and literary; and as I took a particular pleasure in the company of modest women, I had no reason to be displeas'd with the reception I met from them.... I cannot say there is no vanity in making this funeral oration of myself, but I hope it is not a misplaced one; and this is a matter of fact which is easily cleared and ascertained.

What Was Hume's Overall Philosophical Project?

Hume can be called the first 'post-skeptical' modern philosopher. He was wholly convinced (by, among others, the writings of his predecessors Descartes, Locke, and Berkeley, who appear elsewhere in this volume) that no knowledge that goes beyond the mere data of our own minds has anything like secure and reliable foundations: that is, he believed, we have no certain knowledge of the inner workings of the physical world and its laws, or of God, or of absolute moral 'truth,' or even of our own 'real selves.' All we have secure knowledge of is our own mental states and their relations: our sensory impressions, our ideas, our emotions, and so on.

Despite all this, Hume's philosophical project was a positive one: he wanted to develop a new, constructive science of human nature that would provide a defensible foundation for all the sciences, including ethics, physics, and politics. Where Hume's predecessors tried in vain to argue against philosophical skepticism, Hume assumed that a certain kind of skepticism was actually true and tried to go beyond it, to say something positive about how we are to get on with our lives (including our lives as scientists and philosophers).

Much of Hume's philosophical writing, therefore, begins by showing the unstoppable power of skepticism in some domain—such as skepticism about causation or objective ethical truths—and then goes on to show how we can still talk sensibly about causation or ethics after all. The selection from *An Enquiry Concerning Human Understanding* which appears below follows this pattern.

One of the central aspects of both Hume's skeptical and his constructive philosophy is his strictly empirical methodology—a development of what was called in Hume's day 'the experimental method.' His science of human nature is based firmly on the experimental methods of the natural sciences, which emphasize the data of experience and observation, sometimes combined with mathematical or logical reasoning. Any other method of investigation—such as an appeal to 'innate intuition,' for example—is illegitimate. As Hume put it:

If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, *Does it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matter of fact and existence?* No. Commit it then to the flames: for it can contain nothing but sophistry and illusion. [This is the final paragraph of his *An Enquiry Concerning Human Understanding*.]

This assumption that all human knowledge is either a "matter of fact" or a matter of "relations of ideas"—the product of experience or of reason—is often known as 'Hume's Fork.'

What Is the Structure of This Reading?

An Enquiry Concerning Human Understanding first appeared (in 1748) under the title *Philosophical Essays Concerning Human Understanding*, and it does indeed consist of twelve somewhat loosely related philosophical essays. The underlying theme which ties the essays together is the primacy of experience and causal inference in establishing our ideas, especially such philosophically important ideas as necessity and probability, free will, and God.

Hume's argument in this reading has two parts. In the first part he argues there can be no rational justification for our expectations about those parts of the physical world we have not yet observed; in the second he presents his "skeptical solution of these doubts." First, in Section IV Part I, he introduces a distinction between relations of ideas and matters of fact. He then argues that all empirical claims which go beyond "the present testimony of our senses, or

the records of our memory" are based on reasonings "founded on the relation of cause and effect." How do we come to discover relations of cause and effect? Not, Hume argues, from "reasonings *a priori*" but from experience. In Part II, Hume addresses the question: "What is the foundation of all conclusions from experience?" and, for the remainder of this part, "contents himself" with a negative answer. He argues that conclusions from experience are not "founded on reasoning, or on any process of the understanding." Part of his argument here has the following structure: Hume tries to show that all experimental arguments rely upon the assumption that nature is generally uniform—the assumption that observed regularities in nature (like the whiteness of swans or day following night) will persist from the present into the future. He then argues—very ingeniously and persuasively—that this assumption is impossible to rationally justify. His conclusion is that inductive inferences are never rationally justifiable.

Hume's constructive project, presented in Section V, has the following pattern. He begins by describing the benefits of a generally skeptical frame of mind. Then he goes on to discuss the principle that *does* cause us to leap to inductive conclusions, since we have no rational reason to do so—this psychological principle, he suggests, is "custom or habit." In Part II, Hume gives us more detail about what he thinks is really going on when we come to have beliefs about the future: he argues that *belief* is a kind of involuntary feeling, "added" to our imagination of some event. That is, we can freely *imagine* almost any future event we like, but we usually cannot make ourselves *believe* that it will happen. This "extra" feeling of belief in a future event, Hume argues, can only be generated automatically in our minds by a certain sequence of past experiences.

Some Useful Background Information

1. Hume, like John Locke (see Chapter 2), began his philosophy with a 'theory of ideas': it is useful to be aware of a few of the basics of this theory when reading this selection. For Hume, the smallest elements of thought are what he called *basic perceptions*. These can usefully be thought of as analogous to atoms, since these basic perceptions are, in Hume's view, bound together in various ways into larger units—*complex perceptions*—according to certain fundamental psychological laws; Hume called these laws "the principle of the association of ideas." Hume thought of this system as being the counterpart of Newtonian physics: on this view, physics is the science of matter, and Humean philosophy is the science of human nature or mind. Hume himself considered this general picture, and the use he made of it, to be his greatest contribution to human thought. It is especially notable that *rationality* plays relatively little part in Hume's naturalistic picture of human nature: instead, our ideas are connected together by deterministic laws based, for example, on their similarity or their history of "constant conjunction" (that is, a history of having always appeared together in the past). Finally, for Hume, these "laws of association" may defy further explanation: we might need to treat them as basic laws—brute regularities—just as the law of gravity was for Newton.
2. Unlike Locke, Hume divides his "perceptions" into two distinct sorts: *impressions* and *ideas*. Impressions are "all our sensations, passions and emotions, as they make their first appearance in the soul," and come in two flavors: *impressions of sensation* and *impressions of reflection*. Impressions of sensation, according to Hume, appear in the mind "from unknown causes," and the reasons for their occurrence are best studied by "anatomists and natural philosophers," rather than by those, like Hume himself, interested in studying human nature. Examples of such sensations might be the visual image of a cat on the mat, or the taste of a grape-flavored Popsicle. Impressions of reflection (such as disgust, pride, or desire) arise, usually, from our perception of and reaction to our own ideas. Finally, our *ideas* are, according to Hume, "the faint images" of impressions: that is, they are copies of earlier impressions (and so, causally dependent on them: you cannot possibly have an idea of something which you haven't previously experienced). Ideas, for Hume, have

been described as “the mental tokens by which we reason,” and would include, for example, our concepts of colors and shapes, of types of objects, of mathematical relationships, of historical individuals, of moral values, and so on.

3. Hume’s arguments in this passage rely on two important distinctions, which it is helpful to have clear in your mind as you read. The first is the distinction which is often called ‘Hume’s fork’ between *relations of ideas* and *matters of fact*. Relations of ideas are propositions whose truth or falsity can be discovered merely by thinking about the concepts involved, and which if true are necessarily true. For example, “a triangle has three sides” must be true since *by definition* triangles have three sides—it’s just part of the concept ‘triangle’ that it be three-sided. In modern jargon, relations of ideas are ‘analytic *a priori*’ propositions. The simplest kind of relation of ideas Hume calls “intuitively certain”: these propositions are just self-evidently true to anyone who understands them, such as “1 is smaller than 2.”¹ Other propositions, which are also relations of ideas, may be more complex and need to be shown by some kind of ‘demonstrative argument’ (the proposition that 2^{16} is 65,536, for example, might not be immediately obvious, but it can be proven by a sequence of small and obvious steps).

Matters of fact, by contrast, are ‘synthetic *a posteriori*’ propositions—that is, only observation and experience can tell us whether they are true or false (and thus they cannot be *necessarily* true, but are only contingently true). An example might be, “sticking your finger inside a hot toaster really hurts.” One of Hume’s key claims is that propositions about relations of ideas never assert the existence of any non-

abstract entities (such as physical objects), while claims about matters of fact often do.

4. The second important distinction used in this reading is one between *demonstrative arguments* and *experimental arguments*. Demonstrative arguments, for Hume, are deductively valid arguments where all the premises are relations of ideas. We can know that the conclusion of a demonstrative argument is true (indeed, necessarily true) without knowing anything about the actual world—this is why Hume often calls them “reasonings *a priori*.” Experimental arguments are arguments of any other kind: that is, they are either arguments which have matters of fact among their premises, or arguments which are not deductive, or (most commonly) both.
5. Finally, a word about “induction.” Although Hume does not actually use the word in this reading, Section IV Part II of the *Enquiry* is usually thought of as presenting, for the first time, “the problem of induction.” Induction is the modern term for the process of arriving at justified beliefs about the future on the basis of experience of the past; to put the same idea in another way, induction is the method for finding out what as-yet unobserved things are like on the basis of a sample of things we have observed. For example, we might notice that every swan we have ever seen has been white, and conclude that, very probably, the next swan we see will also be white. Furthermore, we might think, we’ve seen enough swans to justify concluding that probably *every* swan is white. Thus we use our experience of observing swans to draw inductive conclusions about unseen swans—generalizations about other swans in the world (such as Australian swans), and predictions about future swans as yet unhatched. This method of reasoning is extremely common. It is what (apparently) supports much of our everyday behavior, such as getting up at a certain time in the morning to go to work or school, using a kettle to make tea, relying on the morning weather forecast to help us decide what to wear, expecting the bus to come at a certain time and place, and so on. All of these

1 If you have already read Descartes and Locke you might notice that Hume’s notion of ‘intuition’ is significantly different from that used by his philosophical predecessors. For example, Descartes’s “I think therefore I am” would not count as ‘intuitively certain’ for Hume.

activities and beliefs are based on assuming that past experience is reliable evidence for expectations about the future. Science, too, is largely based on induction—physicists have only observed a tiny, infinitesimal fraction of all the electrons in the universe, for example, yet they assume that all electrons everywhere have the same charge.

We speak of “the problem of induction,” because Hume has apparently shown us that we have no rational justification for induction. This would be an extremely radical conclusion if in fact it is so!

Some Common Misconceptions

1. Hume’s philosophical concerns were not primarily negative or destructive: although he frequently attacks the role of reason in science and human affairs, and points out the limitations of our own experiential knowledge, he does not do so in order to leave us in a skeptical dead end. Instead, these attacks are part of his attempt to place the science of human nature upon a more reliable footing, by actually examining how we come to have the beliefs that we do.
2. Although there are differences of interpretation on this matter, it seems likely that Hume was not merely pointing out that inductive conclusions cannot be known *with certainty* to be true—that induction cannot be 100% rationally justified. For that would simply be to say that induction is not deduction, which is trivial. (It is today part of the *definition* of an inductive, as opposed to deductive, argument that its conclusion may possibly be false even if all its premises are true, and this seems to correspond reasonably well with Hume’s own distinction between experimental and demonstrative methods of reasoning.) Instead, Hume is making the much more radical claim that the conclusions of inductive arguments *have no rational support at all*: they are not “founded on reasoning, or on any process of the understanding.” Inductive arguments, if Hume is right, completely fail to justify their conclusions—their premises, if true, do not make their

conclusions *any* more likely to be true. (Analogously, the argument “roses are red, violets are blue, therefore Brad Pitt will become President of America” is not rationally compelling since the truth of the premises—the respective colors of roses and violets—does nothing to make it more likely to be true that this particular actor will have successful political ambitions. Chapter 1 contains more information on inductive and deductive arguments.)

3. On the other hand, Hume is not arguing that induction does not actually *work*—he’s not arguing that human beings are systematically *wrong* in their predictions about the future. On the contrary, he thinks that human beings are usually very successful in coming to have true beliefs about the future (that the sun will rise tomorrow, or that the next chunk of copper we mine from the earth will conduct electricity). And although it’s admittedly a bit tricky to hold both that this is the case and that induction is not at all justified, it’s not flat out inconsistent: it’s perfectly coherent to say that some of our beliefs are true but unjustified.

How Important and Influential Is This Passage?

An influential British philosopher named C.D. Broad once called inductive reasoning “the glory of Science ... [and] ... the scandal of Philosophy.” The scandal Broad had in mind was the failure of philosophers over the previous two hundred years (he was writing in 1952) to find a convincing answer to Hume’s skeptical arguments ... and this despite the wholesale (and apparently successful) reliance of the natural sciences on inductive arguments. If induction is not rationally justified, recall, then neither are most of the claims of physics, biology, chemistry, economics, and so on. Thus Hume, in effect, discovered and incisively formulated a serious new philosophical problem—the problem of induction. (H.H. Price once called Hume’s discovery of this problem “one of the most important advances in the whole history of thought.”) This problem has very far-reaching consequences indeed, but it is so difficult a puzzle to solve that many philosophers

feel Hume has not yet been satisfactorily answered. Hume's problem of induction is still a live problem today; various answers have been proposed but no single solution has yet found widespread acceptance.

Hume's own "skeptical solution" has been much less influential than his skeptical problem: even if Hume's account in Part V is successful (which many contemporary philosophers and psychologists doubt), it will still only be a *psychological* explanation for why we believe the things we do about the future, whereas what we seem to need to defend science—and most of our everyday beliefs—is a *rational justification* for induction.

Suggestions for Critical Reflection

1. Are "all the objects of human reason or enquiry" divisible into exactly two piles: relations of ideas and matters of fact? What about, for example, the claim that a wall can't be simultaneously red all over and green all over: which of the two categories does this fall into? How about the statement that water is identical with H₂O?
2. Does Hume think we are being unreasonable or irrational if we continue to act as if inductive inferences are justified? Given what Hume has argued, what do you think?
3. What exactly would it mean to claim that the future resembles the past or that nature is "uniform"? Is nature uniform in *every* respect? (For example, is the sky always blue?) So what *kind* of uniformity do you think we need to look for?
4. Does the past reliability of *induction* provide evidence that future instances of induction will also be reliable? For example, on several hundred occasions in the past I inferred on the basis of previous experience that the Big Mac I was about to eat would not be poisonous, and each time I was right; do these several hundred instances of correct induction provide any evidence that induction is *generally* reliable? Why, or why not?
5. What's the difference (if any) between the psychological claim that people believe certain things about the future only out of habit, rather

than because they have gone through some process of reasoning, and the claim that there is no rational justification available for our beliefs about the future? Which claim is Hume making?

6. Is it possible to formulate a skeptical problem about *deduction* that is similar to Hume's problem about induction?
7. What is the difference between believing something and merely imagining that it is true? Does Hume think that when we believe some future event will occur, as opposed to merely imagining it will occur, there is some *extra* idea present in our mind—a sort of idea of belief itself, added to the idea of the future event? Are Hume's views on the nature of belief plausible?

Suggestions for Further Reading

The following two sections of the *Enquiry* re-cast portions of Part III, Book I of the *Treatise*, so that is a good place to begin your extra reading. A critical edition of Hume's philosophical writings is currently being prepared by Oxford University Press, but in the meantime the standard editions are: *A Treatise of Human Nature* (Oxford University Press, 1978) and *Enquiries Concerning Human Understanding and Concerning the Principles of Morals* (Oxford University Press, 1975), both edited by L.A. Selby-Bigge and P.H. Nidditch.

Many good books have been written about Hume's philosophy: a handful of the best and most relevant are *Hume's Epistemology and Metaphysics* by Georges Dicker (Routledge, 1998), *Hume's Philosophy of Belief* by Antony Flew (Routledge & Kegan Paul, 1961), *Hume's Skepticism* by Robert J. Fogelin (Routledge & Kegan Paul, 1985), *David Hume* by Terence Penelhum (Purdue University Press, 1992), *Probability and Hume's Inductive Scepticism* by David Stove (Oxford University Press, 1973), and *Hume* by Barry Stroud (Routledge, 1977). Tom Beauchamp and Alexander Rosenberg defend the view that Hume is not in fact a skeptic about induction in *Hume and the Problem of Causation* (Oxford University Press, 1981).

The Cambridge Companion to Hume, edited by David Fate Norton (Cambridge University Press, 1993), is a helpful collection of specially written essays on differ-

ent aspects of Hume's philosophy, which also includes Hume's short autobiography. An old, but still good, collection of critical essays on Hume is V.C. Chappell's *Hume: A Collection of Critical Essays* (Doubleday, 1966).

Some influential attempts to solve Hume's riddle of induction—apart from those encompassed by the next few readings in this text—include: P.F. Strawson in the final chapter of his book *An Introduction to Logical Theory* (Methuen, 1952); Max Black, "Inductive Support of Inductive Rules," in *Problems of Analysis* (Cornell University Press, 1954); and James Van Cleve, "Reliability, Justification, and the Problem of Induction," in *Midwest Studies in Philosophy* IX (1984). A good review article criticizing many of these attempted solutions (and tentatively suggesting another) is Wesley C. Salmon's "Unfinished Business: The Problem of Induction," *Philosophical Studies* 33 (1978).

from *An Enquiry Concerning Human Understanding*²

Section IV: Sceptical Doubts Concerning the Operations of the Understanding.

PART I.

All the objects of human reason or enquiry may naturally be divided into two kinds, to wit,³ *relations of ideas*, and *matters of fact*. Of the first kind are the sciences of geometry, algebra, and arithmetic; and in short, every affirmation which is either intuitively or demonstratively certain. *That the square of the hypotenuse⁴ is equal to the square of the two sides*, is a proposition which expresses a relation between these figures. *That three times five is equal to the half*

of thirty, expresses a relation between these numbers. Propositions of this kind are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe. Though there never were a circle or triangle in nature, the truths demonstrated by Euclid would for ever retain their certainty and evidence.

Matters of fact, which are the second objects of human reason, are not ascertained in the same manner; nor is our evidence of their truth, however great, of a like nature with the foregoing. The contrary of every matter of fact is still possible; because it can never imply a contradiction, and is conceived by the mind with the same facility and distinctness, as if ever so conformable to reality. *That the sun will not rise to-morrow* is no less intelligible a proposition, and implies no more contradiction than the affirmation, *that it will rise*. We should in vain, therefore, attempt to demonstrate its falsehood. Were it demonstratively false, it would imply a contradiction, and could never be distinctly conceived by the mind.

It may, therefore, be a subject worthy of curiosity, to enquire what is the nature of that evidence which assures us of any real existence and matter of fact, beyond the present testimony of our senses, or the records of our memory. This part of philosophy, it is observable, has been little cultivated, either by the ancients or moderns; and therefore our doubts and errors, in the prosecution of so important an enquiry, may be the more excusable; while we march through such difficult paths without any guide or direction. They may even prove useful, by exciting curiosity, and destroying that implicit faith and security, which is the bane of all reasoning and free enquiry. The discovery of defects in the common philosophy, if any such there be, will not, I presume, be a discouragement, but rather an incitement, as is usual, to attempt something more full and satisfactory than has yet been proposed to the public.

All reasonings concerning matter of fact seem to be founded on the relation of *cause and effect*. By means of that relation alone we can go beyond the evidence of our memory and senses. If you were to ask a man, why he believes any matter of fact, which is absent; for instance, that his friend is in the country, or in France; he would give you a reason; and this

2 Hume's *An Enquiry Concerning Human Understanding* was first published in 1748. This selection is taken from the 1777 "new edition," generally considered the final version authorized by Hume. Most of the spelling, capitalization, and punctuation have been modernized.

3 "To wit" is a phrase meaning "that is to say" or "namely."

4 The hypotenuse is the side opposite the right angle of a right-angled triangle.

reason would be some other fact; as a letter received from him, or the knowledge of his former resolutions and promises. A man finding a watch or any other machine in a desert island, would conclude that there had once been men in that island. All our reasonings concerning fact are of the same nature. And here it is constantly supposed that there is a connection between the present fact and that which is inferred from it. Were there nothing to bind them together, the inference would be entirely precarious. The hearing of an articulate voice and rational discourse in the dark assures us of the presence of some person: Why? Because these are the effects of the human make and fabric, and closely connected with it. If we anatomize⁵ all the other reasonings of this nature, we shall find that they are founded on the relation of cause and effect, and that this relation is either near or remote, direct or collateral. Heat and light are collateral effects of fire, and the one effect may justly be inferred from the other.

If we would satisfy ourselves, therefore, concerning the nature of that evidence, which assures us of matters of fact, we must enquire how we arrive at the knowledge of cause and effect.

I shall venture to affirm, as a general proposition, which admits of no exception, that the knowledge of this relation is not, in any instance, attained by reasonings *a priori*;⁶ but arises entirely from experience, when we find that any particular objects are constantly conjoined with each other. Let an object be presented to a man of ever so strong natural reason and abilities; if that object be entirely new to him, he will not be able, by the most accurate examination of its sensible⁷ qualities, to discover any of its causes or effects. Adam,⁸ though his rational faculties be supposed, at the very first, entirely perfect, could not have inferred from the fluidity and transparency of water that it would suffocate him, or from the light and warmth of fire that it would consume him. No

object ever discovers,⁹ by the qualities which appear to the senses, either the causes which produced it, or the effects which will arise from it; nor can our reason, unassisted by experience, ever draw any inference concerning real existence and matter of fact.

This proposition, *that causes and effects are discoverable, not by reason but by experience*, will readily be admitted with regard to such objects as we remember to have once been altogether unknown to us; since we must be conscious of the utter inability, which we then lay under, of foretelling what would arise from them. Present two smooth pieces of marble to a man who has no tincture of natural philosophy;¹⁰ he will never discover that they will adhere together in such a manner as to require great force to separate them in a direct line, while they make so small a resistance to a lateral pressure. Such events, as bear little analogy to the common course of nature, are also readily confessed to be known only by experience; nor does any man imagine that the explosion of gunpowder, or the attraction of a loadstone,¹¹ could ever be discovered by arguments *a priori*. In like manner, when an effect is supposed to depend upon an intricate machinery or secret structure of parts, we make no difficulty in attributing all our knowledge of it to experience. Who will assert that he can give the ultimate reason, why milk or bread is proper nourishment for a man, not for a lion or a tiger?

But the same truth may not appear, at first sight, to have the same evidence with regard to events, which have become familiar to us from our first appearance in the world, which bear a close analogy to the whole course of nature, and which are supposed to depend on the simple qualities of objects, without any secret structure of parts. We are apt to imagine that we could discover these effects by the mere operation of our reason, without experience. We fancy, that were we brought on a sudden into this world, we could at first have inferred that one billiard-ball would com-

5 Closely examine.

6 Prior to experience; purely deductively.

7 "Sensible" means, here and elsewhere, able to be perceived or sensed.

8 According to the Old Testament, the first human being.

9 Here (and sometimes elsewhere) "discovers" means reveals or discloses (rather than finds out).

10 That is: no trace of knowledge of physical science.

11 A magnet (made from naturally occurring magnetic iron oxide).

municate motion to another upon impulse;¹² and that we needed not to have waited for the event, in order to pronounce with certainty concerning it. Such is the influence of custom,¹³ that, where it is strongest, it not only covers our natural ignorance, but even conceals itself, and seems not to take place, merely because it is found in the highest degree.

But to convince us that all the laws of nature, and all the operations of bodies without exception, are known only by experience, the following reflections may, perhaps, suffice. Were any object presented to us, and were we required to pronounce concerning the effect, which will result from it, without consulting past observation; after what manner, I beseech you, must the mind proceed in this operation? It must invent or imagine some event, which it ascribes to the object as its effect; and it is plain that this invention must be entirely arbitrary. The mind can never possibly find the effect in the supposed cause, by the most accurate scrutiny and examination. For the effect is totally different from the cause, and consequently can never be discovered in it. Motion in the second billiard-ball is a quite distinct event from motion in the first; nor is there any thing in the one to suggest the smallest hint of the other. A stone or piece of metal raised into the air, and left without any support, immediately falls: but to consider the matter *a priori*, is there any thing we discover in this situation which can beget the idea of a downward, rather than an upward, or any other motion, in the stone or metal?

And as the first imagination or invention of a particular effect, in all natural operations, is arbitrary, where we consult not experience; so must we also esteem the supposed tie or connection between the cause and effect, which binds them together, and renders it impossible that any other effect could result from the operation of that cause. When I see, for instance, a billiard-ball moving in a straight line towards another; even suppose motion in the second ball should by accident be suggested to me, as the result of their contact or impulse; may I not conceive, that a hundred different events might as well follow from that cause? May not both these balls remain at absolute rest? May

not the first ball return in a straight line, or leap off from the second in any line or direction? All these suppositions are consistent and conceivable. Why then should we give the preference to one, which is no more consistent or conceivable than the rest? All our reasonings *a priori* will never be able to show us any foundation for this preference.

In a word, then, every effect is a distinct event from its cause. It could not, therefore, be discovered in the cause, and the first invention or conception of it, *a priori*, must be entirely arbitrary. And even after it is suggested, the conjunction of it with the cause must appear equally arbitrary; since there are always many other effects, which, to reason, must seem fully as consistent and natural. In vain, therefore, should we pretend to determine any single event, or infer any cause or effect, without the assistance of observation and experience.

Hence we may discover the reason why no philosopher,¹⁴ who is rational and modest, has ever pretended to assign the ultimate cause of any natural operation, or to show distinctly the action of that power, which produces any single effect in the universe. It is confessed, that the utmost effort of human reason is to reduce the principles, productive of natural phenomena, to a greater simplicity, and to resolve the many particular effects into a few general causes, by means of reasonings from analogy, experience, and observation. But as to the causes of these general causes, we should in vain attempt their discovery; nor shall we ever be able to satisfy ourselves, by any particular explication of them. These ultimate springs and principles are totally shut up from human curiosity and enquiry. Elasticity, gravity, cohesion of parts, communication of motion by impulse; these are probably the ultimate causes and principles which we shall ever discover in nature; and we may esteem ourselves sufficiently happy, if, by accurate enquiry and reasoning, we can trace up the particular phenomena to, or near to, these general principles. The most perfect philosophy of the natural kind only staves off our ignorance a little longer: as perhaps the most perfect philosophy of the moral or metaphysical kind

12 Impact, collision.

13 Habit, repeated similar experience.

14 The word "philosopher" at this time included natural scientists.

serves only to discover larger portions of it. Thus the observation of human blindness and weakness is the result of all philosophy, and meets us at every turn, in spite of our endeavours to elude or avoid it.

Nor is geometry, when taken into the assistance of natural philosophy, ever able to remedy this defect, or lead us into the knowledge of ultimate causes, by all that accuracy of reasoning for which it is so justly celebrated. Every part of mixed mathematics¹⁵ proceeds upon the supposition that certain laws are established by nature in her operations; and abstract reasonings are employed, either to assist experience in the discovery of these laws, or to determine their influence in particular instances, where it depends upon any precise degree of distance and quantity. Thus, it is a law of motion, discovered by experience, that the moment¹⁶ or force of any body in motion is in the compound ratio or proportion of its solid contents¹⁷ and its velocity; and consequently, that a small force may remove the greatest obstacle or raise the greatest weight, if, by any contrivance or machinery, we can increase the velocity of that force, so as to make it an overmatch for its antagonist.¹⁸ Geometry assists us in the application of this law, by giving us the just dimensions of all the parts and figures which can enter into any species of machine; but still the discovery of the law itself is owing merely to experience, and all the abstract reasonings in the world could never lead us one step towards the knowledge of it. When we reason *a priori*, and consider merely any object or cause, as it appears to the mind, independent of all observation,

15 Mathematical physics (mathematics applied to the physical world).

16 Momentum.

17 Mass.

18 Here is what Hume means by this example (which comes from Newtonian physics). Imagine two bodies A and B: suppose that A has a mass of 2 and a velocity of 4 and that B has a mass of 6 and a velocity of 1. Thus the ratios of their respective masses will be 2:6 and their respective velocities 4:1. Then, A will have a higher momentum or force than B (despite only having one third the mass), since the “compound ratio” of its momentum to that of B will be 2×4 to 6×1 , which is 8:6.

it never could suggest to us the notion of any distinct object, such as its effect; much less, show us the inseparable and inviolable connection between them. A man must be very sagacious¹⁹ who could discover by reasoning that crystal is the effect of heat, and ice of cold, without being previously acquainted with the operation of these qualities.

PART II.

But we have not yet attained any tolerable satisfaction with regard to the question first proposed. Each solution still gives rise to a new question as difficult as the foregoing, and leads us on to farther enquiries. When it is asked, *What is the nature of all our reasonings concerning matter of fact?* the proper answer seems to be, that they are founded on the relation of cause and effect. When again it is asked, *What is the foundation of all our reasonings and conclusions concerning that relation?* it may be replied in one word, Experience. But if we still carry on our sifting humour,²⁰ and ask, *What is the foundation of all conclusions from experience?* this implies a new question, which may be of more difficult solution and explication. Philosophers, that give themselves airs of superior wisdom and sufficiency,²¹ have a hard task when they encounter persons of inquisitive dispositions, who push them from every corner to which they retreat, and who are sure at last to bring them to some dangerous dilemma. The best expedient to prevent this confusion, is to be modest in our pretensions; and even to discover the difficulty ourselves before it is objected to us. By this means, we may make a kind of merit of our very ignorance.

I shall content myself, in this section, with an easy task, and shall pretend²² only to give a negative answer to the question here proposed. I say then, that, even after we have experience of the operations of cause and effect, our conclusions from that experience are *not* founded on reasoning, or any process of the

19 Mentally penetrating, insightful (Hume is being ironic).

20 Searching frame of mind.

21 Here “sufficiency” means ability.

22 Aim, venture.

understanding. This answer we must endeavour both to explain and to defend.

It must certainly be allowed, that nature has kept us at a great distance from all her secrets, and has afforded us only the knowledge of a few superficial qualities of objects; while she conceals from us those powers and principles on which the influence of those objects entirely depends. Our senses inform us of the colour, weight, and consistence²³ of bread; but neither sense nor reason can ever inform us of those qualities which fit it for the nourishment and support of a human body. Sight or feeling conveys an idea of the actual motion of bodies; but as to that wonderful force or power, which would carry on a moving body for ever in a continued change of place, and which bodies never lose but by communicating it to others; of this we cannot form the most distant conception. But notwithstanding this ignorance of natural powers²⁴ and principles, we always presume, when we see like²⁵ sensible qualities, that they have like secret powers, and expect that effects, similar to those which we have experienced, will follow from them. If a body of like colour and consistence with that bread, which we have formerly eat,²⁶ be presented to us, we make no scruple of repeating the experiment,²⁷ and foresee, with certainty, like nourishment and support. Now this is a process of the mind or thought, of which I would willingly know the foundation. It is allowed on all hands that there is no known connection between the sensible qualities and the secret powers; and consequently, that the mind is not led to form such a conclusion concerning their constant and regular conjunction, by any thing which it knows of their nature. As to past *experience*, it can be allowed to give *direct* and *certain* information of those precise objects only, and that precise period of time, which fell under its cognizance: But why this experience should be

23 Consistency, texture.

24 [Author's note] The word, Power, is here used in a loose and popular sense. The more accurate explication of it would give additional evidence to this argument. See Sect. 7 [not reprinted here].

25 Similar.

26 Eaten.

27 Experience.

extended to future times, and to other objects, which for aught we know, may be only in appearance similar; this is the main question on which I would insist. The bread, which I formerly eat, nourished me; that is, a body of such sensible qualities was, at that time, endued with²⁸ such secret powers: but does it follow, that other bread must also nourish me at another time, and that like sensible qualities must always be attended with like secret powers? The consequence seems nowise necessary. At least, it must be acknowledged that there is here a consequence drawn by the mind; that there is a certain step taken; a process of thought, and an inference, which wants to be explained. These two propositions are far from being the same, *I have found that such an object has always been attended with such an effect*, and *I foresee, that other objects, which are, in appearance, similar, will be attended with similar effects*. I shall allow, if you please, that the one proposition may justly be inferred from the other: I know, in fact, that it always is inferred. But if you insist that the inference is made by a chain of reasoning, I desire you to produce that reasoning. The connection between these propositions is not intuitive. There is required a medium,²⁹ which may enable the mind to draw such an inference, if indeed it be drawn by reasoning and argument. What that medium is, I must confess, passes my comprehension; and it is incumbent on those to produce it, who assert that it really exists, and is the origin of all our conclusions concerning matter of fact.

This negative argument must certainly, in process of time, become altogether convincing, if many penetrating and able philosophers shall turn their enquiries this way and no one be ever able to discover any connecting proposition or intermediate step, which supports the understanding in this conclusion. But as the question is yet new, every reader may not trust so far to his own penetration, as to conclude, because an argument escapes his enquiry, that therefore it does not really exist. For this reason it may be requisite to venture upon a more difficult task; and enumerating all the branches of human knowledge, endeavour to show that none of them can afford such an argument.

28 Endowed with, possessed of.

29 A ground of inference; a further premise.

All reasonings may be divided into two kinds, namely, demonstrative reasoning, or that concerning relations of ideas, and moral³⁰ reasoning, or that concerning matter of fact and existence. That there are no demonstrative arguments in the case seems evident; since it implies no contradiction that the course of nature may change, and that an object, seemingly like those which we have experienced, may be attended with different or contrary effects. May I not clearly and distinctly conceive that a body, falling from the clouds, and which, in all other respects, resembles snow, has yet the taste of salt or feeling of fire? Is there any more intelligible proposition than to affirm, that all the trees will flourish in December and January, and decay in May and June? Now whatever is intelligible, and can be distinctly conceived, implies no contradiction, and can never be proved false by any demonstrative argument or abstract reasoning *a priori*.

If we be, therefore, engaged³¹ by arguments to put trust in past experience, and make it the standard of our future judgement, these arguments must be probable only, or such as regard matter of fact and real existence according to the division above mentioned. But that there is no argument of this kind, must appear, if our explication of that species of reasoning be admitted as solid and satisfactory. We have said that all arguments concerning existence are founded on the relation of cause and effect; that our knowledge of that relation is derived entirely from experience; and that all our experimental conclusions proceed upon the supposition that the future will be conformable to the past. To endeavour, therefore, the proof of this last supposition by probable arguments, or arguments regarding existence, must be evidently going in a circle, and taking that for granted, which is the very point in question.

In reality, all arguments from experience are founded on the similarity which we discover among

natural objects, and by which we are induced to expect effects similar to those which we have found to follow from such objects. And though none but a fool or madman will ever pretend to dispute the authority of experience, or to reject that great guide of human life, it may surely be allowed a philosopher to have so much curiosity at least as to examine the principle of human nature, which gives this mighty authority to experience, and makes us draw advantage from that similarity which nature has placed among different objects. From causes which, appear *similar*, we expect similar effects. This is the sum of all our experimental conclusions. Now it seems evident that, if this conclusion were formed by reason, it would be as perfect at first, and upon one instance, as after ever so long a course of experience. But the case is far otherwise. Nothing so like as eggs; yet no one, on account of this appearing similarity, expects the same taste and relish in all of them. It is only after a long course of uniform experiments in any kind, that we attain a firm reliance and security with regard to a particular event. Now where is that process of reasoning which, from one instance, draws a conclusion, so different from that which it infers from a hundred instances that are nowise different from that single one? This question I propose as much for the sake of information, as with an intention of raising difficulties. I cannot find, I cannot imagine any such reasoning. But I keep my mind still open to instruction, if any one will vouchsafe to bestow it on me.

Should it be said that, from a number of uniform experiments, we *infer* a connection between the sensible qualities and the secret powers; this, I must confess, seems the same difficulty, couched in different terms. The question still recurs, on what process of argument this *inference* is founded? Where is the medium, the interposing ideas, which join propositions so very wide of each other? It is confessed that the colour, consistence, and other sensible qualities of bread appear not, of themselves, to have any connection with the secret powers of nourishment and support. For otherwise we could infer these secret powers from the first appearance of these sensible qualities, without the aid of experience; contrary to the sentiment³² of all philosophers, and contrary to plain

30 Here "moral" means inductive or having at best only a probable conclusion. (Often, however, Hume uses the phrase "moral philosophy" in a somewhat different way, to mean the study of the nature of human beings, contrasted with "natural philosophy," the study of nature.)

31 Induced, persuaded.

32 Opinion.

matter of fact. Here, then, is our natural state of ignorance with regard to the powers and influence of all objects. How is this remedied by experience? It only shows us a number of uniform effects, resulting from certain objects, and teaches us that those particular objects, at that particular time, were endowed with such powers and forces. When a new object, endowed with similar sensible qualities, is produced, we expect similar powers and forces, and look for a like effect. From a body of like colour and consistence with bread we expect like nourishment and support. But this surely is a step or progress of the mind, which wants to be explained. When a man says, *I have found, in all past instances, such sensible qualities conjoined with such secret powers*: and when he says, *similar sensible qualities will always be conjoined with similar secret powers*, he is not guilty of a tautology, nor are these propositions in any respect the same. You say that the one proposition is an inference from the other. But you must confess that the inference is not intuitive; neither is it demonstrative: Of what nature is it, then? To say it is experimental, is begging the question. For all inferences from experience suppose, as their foundation, that the future will resemble the past, and that similar powers will be conjoined with similar sensible qualities. If there be any suspicion that the course of nature may change, and that the past may be no rule for the future, all experience becomes useless, and can give rise to no inference or conclusion. It is impossible, therefore, that any arguments from experience can prove this resemblance of the past to the future; since all these arguments are founded on the supposition of that resemblance. Let the course of things be allowed hitherto ever so regular; that alone, without some new argument or inference, proves not that, for the future, it will continue so. In vain do you pretend to have learned the nature of bodies from your past experience. Their secret nature, and consequently all their effects and influence, may change, without any change in their sensible qualities. This happens sometimes, and with regard to some objects: why may it not happen always, and with regard to all objects? What logic, what process or argument secures you against this supposition? My practice, you say, refutes my doubts. But you mistake the purport of my question. As an agent, I am quite satisfied in the point; but

as a philosopher, who has some share of curiosity, I will not say scepticism, I want to learn the foundation of this inference. No reading, no enquiry has yet been able to remove my difficulty, or give me satisfaction in a matter of such importance. Can I do better than propose the difficulty to the public, even though, perhaps, I have small hopes of obtaining a solution? We shall at least, by this means, be sensible of our ignorance, if we do not augment our knowledge.

I must confess that a man is guilty of unpardonable arrogance who concludes, because an argument has escaped his own investigation, that therefore it does not really exist. I must also confess that, though all the learned, for several ages, should have employed themselves in fruitless search upon any subject, it may still, perhaps, be rash to conclude positively that the subject must, therefore, pass all human comprehension. Even though we examine all the sources of our knowledge, and conclude them unfit for such a subject, there may still remain a suspicion, that the enumeration is not complete, or the examination not accurate. But with regard to the present subject, there are some considerations which seem to remove all this accusation of arrogance or suspicion of mistake.

It is certain that the most ignorant and stupid peasants—nay infants, nay even brute beasts—improve by experience, and learn the qualities of natural objects, by observing the effects which result from them. When a child has felt the sensation of pain from touching the flame of a candle, he will be careful not to put his hand near any candle; but will expect a similar effect from a cause which is similar in its sensible qualities and appearance. If you assert, therefore, that the understanding of the child is led into this conclusion by any process of argument or ratiocination, I may justly require you to produce that argument; nor have you any pretence to refuse so equitable a demand. You cannot say that the argument is abstruse, and may possibly escape your enquiry; since you confess that it is obvious to the capacity of a mere infant. If you hesitate, therefore, a moment, or if, after reflection, you produce any intricate or profound argument, you, in a manner, give up the question, and confess that it is not reasoning which engages us to suppose the past resembling the future, and to expect similar effects from causes which are, to appearance,

similar. This is the proposition which I intended to enforce in the present section. If I be right, I pretend not to have made any mighty discovery. And if I be wrong, I must acknowledge myself to be indeed a very backward scholar; since I cannot now discover an argument which, it seems, was perfectly familiar to me long before I was out of my cradle.

Section V: Sceptical Solution of these Doubts.

PART I.

The passion for philosophy, like that for religion, seems liable to this inconvenience, that, though it aims at the correction of our manners, and extirpation of our vices, it may only serve, by imprudent management, to foster a predominant inclination, and push the mind, with more determined resolution, towards that side which already *draws* too much,³³ by the bias and propensity of the natural temper. It is certain that, while we aspire to the magnanimous firmness of the philosophic sage, and endeavour to confine our pleasures altogether within our own minds, we may, at last, render our philosophy like that of Epictetus, and other *Stoics*,³⁴ only a more refined system of selfishness, and reason ourselves out of all virtue as well as social enjoyment. While we study with attention the vanity of human life, and turn all our thoughts towards the empty and transitory nature of riches and honours, we are, perhaps, all the while flattering our natural indolence, which, hating the bustle of the world, and drudgery of business, seeks a pretence of reason to give itself a full and uncontrolled indulgence. There is, however, one species of philosophy which seems little liable to this inconvenience, and that because it strikes in with no disorderly passion of the human

mind, nor can mingle itself with any natural affection or propensity; and that is the Academic or Sceptical philosophy.³⁵ The academics always talk of doubt and suspense of judgement, of danger in hasty determinations, of confining to very narrow bounds the enquiries of the understanding, and of renouncing all speculations which lie not within the limits of common life and practice. Nothing, therefore, can be more contrary than such a philosophy to the supine indolence of the mind, its rash arrogance, its lofty pretensions, and its superstitious credulity. Every passion is mortified by it, except the love of truth; and that passion never is, nor can be, carried to too high a degree. It is surprising, therefore, that this philosophy, which, in almost every instance, must be harmless and innocent, should be the subject of so much groundless reproach and obloquy. But, perhaps, the very circumstance which renders it so innocent is what chiefly exposes it to the public hatred and resentment. By flattering no irregular passion, it gains few partisans: by opposing so many vices and follies, it raises to itself abundance of enemies, who stigmatize it as libertine, profane, and irreligious.

Nor need we fear that this philosophy, while it endeavours to limit our enquiries to common life, should ever undermine the reasonings of common life, and carry its doubts so far as to destroy all action, as well as speculation. Nature will always maintain her rights, and prevail in the end over any abstract reasoning whatsoever. Though we should conclude, for instance, as in the foregoing section, that, in all reasonings from experience, there is a step taken by the mind which is not supported by any argument or process of the understanding; there is no danger that these reasonings, on which almost all knowledge depends, will ever be affected by such a discovery. If the mind be not engaged by argument to make this step, it must be induced by some other principle of equal weight and

33 Pulls too much—i.e., toward the side we already favor.

34 Epictetus (c. 55–135 CE) was a leading Stoic of the Roman era. Stoicism was a philosophical movement that flourished between roughly 300 BCE and 200 CE, and its main doctrine was that the guiding principle of nature is Reason (*logos*) and the highest virtue is to live in harmony with this rational order.

35 Hume means a kind of moderate skepticism, associated with Plato and the school he founded in Athens around 380 BCE, the Academy. This is to be contrasted with the extreme skepticism sometimes called Pyrrhonism, which seeks to suspend judgment on any question having conflicting evidence—which is to say, on nearly all questions.

authority; and that principle will preserve its influence as long as human nature remains the same. What that principle is may well be worth the pains of enquiry.

Suppose a person, though endowed with the strongest faculties of reason and reflection, to be brought on a sudden into this world; he would, indeed, immediately observe a continual succession of objects, and one event following another; but he would not be able to discover anything farther. He would not, at first, by any reasoning, be able to reach the idea of cause and effect; since the particular powers, by which all natural operations are performed, never appear to the senses; nor is it reasonable to conclude, merely because one event, in one instance, precedes another, that therefore the one is the cause, the other the effect. Their conjunction may be arbitrary and casual. There may be no reason to infer the existence of one from the appearance of the other. And in a word, such a person, without more experience, could never employ his conjecture or reasoning concerning any matter of fact, or be assured of any thing beyond what was immediately present to his memory and senses.

Suppose, again, that he has acquired more experience, and has lived so long in the world as to have observed familiar objects or events to be constantly conjoined together; what is the consequence of this experience? He immediately infers the existence of one object from the appearance of the other. Yet he has not, by all his experience, acquired any idea or knowledge of the secret power by which the one object produces the other; nor is it by any process of reasoning, he is engaged to draw this inference. But still he finds himself determined to draw it: And though he should be convinced that his understanding has no part in the operation, he would nevertheless continue in the same course of thinking. There is some other principle which determines him to form such a conclusion.

This principle is custom or habit. For wherever the repetition of any particular act or operation produces a propensity to renew the same act or operation, without being impelled by any reasoning or process of the understanding, we always say, that this propensity is the effect of *custom*. By employing that word, we pretend not to have given the ultimate reason of such a propensity. We only point out a principle of

human nature, which is universally acknowledged, and which is well known by its effects. Perhaps we can push our enquiries no farther, or pretend to give the cause of this cause; but must rest contented with it as the ultimate principle, which we can assign, of all our conclusions from experience. It is sufficient satisfaction, that we can go so far, without repining at the narrowness of our faculties because they will carry us no farther. And it is certain we here advance a very intelligible proposition at least, if not a true one, when we assert that, after the constant conjunction of two objects—heat and flame, for instance, weight and solidity—we are determined³⁶ by custom alone to expect the one from the appearance of the other. This hypothesis seems even the only one which explains the difficulty, why we draw, from a thousand instances, an inference which we are not able to draw from one instance, that is, in no respect, different from them. Reason is incapable of any such variation. The conclusions which it draws from considering one circle are the same which it would form upon surveying all the circles in the universe. But no man, having seen only one body move after being impelled by another, could infer that every other body will move after a like impulse. All inferences from experience, therefore, are effects of custom, not of reasoning.³⁷

36 Caused.

37 [Author's note] Nothing is more usual than for writers, even, on *moral*, *political*, or *physical* subjects to distinguish between *reason* and *experience*, and to suppose, that these species of argumentation are entirely different from each other. The former are taken for the mere result of our intellectual faculties, which, by considering *a priori* the nature of things, and examining the effects, that must follow from their operation, establish particular principles of science and philosophy. The latter are supposed to be derived entirely from sense and observation, by which we learn what has actually resulted from the operation of particular objects, and are thence able to infer, what will, for the future, result from them. Thus, for instance, the limitations and restraints of civil government, and a legal constitution, may be defended, either from *reason*, which reflecting on the great frailty and corruption of human nature, teaches, that no man can safely be

Custom, then, is the great guide of human life. It is

trusted with unlimited authority; or from *experience* and history, which inform us of the enormous abuses, that ambition, in every age and country, has been found to make so imprudent a confidence.

The same distinction between reason and experience is maintained in all our deliberations concerning the conduct of life; while the experienced statesman, general, physician, or merchant is trusted and followed; and the unpractised novice, with whatever natural talents endowed, neglected and despised. Though it be allowed, that reason may form very plausible conjectures with regard to the consequences of such a particular conduct in such particular circumstances; it is still supposed imperfect, without the assistance of experience, which is alone able to give stability and certainty to the maxims, derived from study and reflection.

But notwithstanding that this distinction be thus universally received, both in the active and speculative scenes of life, I shall not scruple to pronounce, that it is, at bottom, erroneous, at least, superficial.

If we examine those arguments, which, in any of the sciences above mentioned, are supposed to be mere effects of reasoning and reflection, they will be found to terminate, at last, in some general principle or conclusion, for which we can assign no reason but observation and experience. The only difference between them and those maxims, which are vulgarly esteemed the result of pure experience, is, that the former cannot be established without some process of thought, and some reflection on what we have observed, in order to distinguish its circumstances, and trace its consequences: Whereas in the latter, the experienced event is exactly and fully familiar to that which we infer as the result of any particular situation. The history of a Tiberius or a Nero makes us dread a like tyranny, were our monarchs freed from the restraints of laws and senates: but the observation of any fraud or cruelty in private life is sufficient, with the aid of a little thought, to give us the same apprehension; while it serves as an instance of the general corruption of human nature, and shows us the danger which we must incur by reposing an entire confidence in mankind. In both cases, it is experience which is ultimately the foundation of our inference and conclusion.

that principle alone which renders our experience useful to us, and makes us expect, for the future, a similar train of events with those which have appeared in the past. Without the influence of custom, we should be entirely ignorant of every matter of fact beyond what is immediately present to the memory and senses. We should never know how to adjust means to ends, or to employ our natural powers in the production of any effect. There would be an end at once of all action, as well as of the chief part of speculation.

But here it may be proper to remark, that though our conclusions from experience carry us beyond our memory and senses, and assure us of matters of fact which happened in the most distant places and most remote ages, yet some fact must always be present to the senses or memory, from which we may first proceed in drawing these conclusions. A man, who should find in a desert country the remains of pompous³⁸ buildings, would conclude that the country had, in ancient times, been cultivated by civilized inhabitants; but did nothing of this nature occur to him, he could never form such an inference. We learn the events of former ages from history; but then we must

There is no man so young and inexperienced, as not to have formed, from observation, many general and just maxims concerning human affairs and the conduct of life; but it must be confessed, that, when a man comes to put these in practice, he will be extremely liable to error, till time and farther experience both enlarge these maxims, and teach him their proper use and application. In every situation or incident, there are many particular and seemingly minute circumstances, which the man of greatest talent is, at first, apt to overlook, though on them the justness of his conclusions, and consequently the prudence of his conduct, entirely depend. Not to mention, that, to a young beginner, the general observations and maxims occur not always on the proper occasions, nor can be immediately applied with due calmness and distinction. The truth is, an unexperienced reasoner could be no reasoner at all, were he absolutely unexperienced; and when we assign that character to any one, we mean it only in a comparative sense, and suppose him possessed of experience, in a smaller and more imperfect degree.

38 Splendid, full of pomp.

peruse the volumes in which this instruction is contained, and thence carry up our inferences from one testimony to another, till we arrive at the eyewitnesses and spectators of these distant events. In a word, if we proceed not upon some fact, present to the memory or senses, our reasonings would be merely hypothetical; and however the particular links might be connected with each other, the whole chain of inferences would have nothing to support it, nor could we ever, by its means, arrive at the knowledge of any real existence. If I ask why you believe any particular matter of fact, which you relate, you must tell me some reason; and this reason will be some other fact, connected with it. But as you cannot proceed after this manner, *in infinitum*,³⁹ you must at last terminate in some fact, which is present to your memory or senses; or must allow that your belief is entirely without foundation.

What, then, is the conclusion of the whole matter? A simple one; though, it must be confessed, pretty remote from the common theories of philosophy. All belief of matter of fact or real existence is derived merely from some object, present to the memory or senses, and a customary conjunction between that and some other object. Or in other words; having found, in many instances, that any two kinds of objects—flame and heat, snow and cold—have always been conjoined together; if flame or snow be presented anew to the senses, the mind is carried by custom to expect heat or cold, and to *believe* that such a quality does exist, and will discover itself upon a nearer approach. This belief is the necessary result of placing the mind in such circumstances. It is an operation of the soul, when we are so situated, as unavoidable as to feel the passion of love, when we receive benefits; or hatred, when we meet with injuries. All these operations are a species of natural instincts, which no reasoning or process of the thought and understanding is able either to produce or to prevent.

At this point, it would be very allowable for us to stop our philosophical researches. In most questions we can never make a single step farther; and in all questions we must terminate here at last, after our most restless and curious enquiries. But still our curiosity will be pardonable, perhaps commendable, if

it carry us on to still farther researches, and make us examine more accurately the nature of this *belief*, and of the *customary conjunction*, whence it is derived. By this means we may meet with some explications and analogies that will give satisfaction; at least to such as love the abstract sciences, and can be entertained with speculations, which, however accurate, may still retain a degree of doubt and uncertainty. As to readers of a different taste; the remaining part of this section is not calculated for them, and the following enquiries may well be understood, though it be neglected.

PART II.

Nothing is more free than the imagination of man; and though it cannot exceed that original stock of ideas furnished by the internal and external senses, it has unlimited power of mixing, compounding, separating, and dividing these ideas, in all the varieties of fiction and vision. It can feign⁴⁰ a train of events, with all the appearance of reality, ascribe to them a particular time and place, conceive them as existent, and paint them out to itself with every circumstance, that belongs to any historical fact, which it believes with the greatest certainty. Wherein, therefore, consists the difference between such a *fiction* and *belief*? It lies not merely in any peculiar idea, which is annexed to such a conception as commands our assent, and which is wanting⁴¹ to every known fiction. For as the mind has authority over all its ideas, it could voluntarily annex this particular idea to any fiction, and consequently be able to believe whatever it pleases; contrary to what we find by daily experience. We can, in our conception, join the head of a man to the body of a horse; but it is not in our power to believe that such an animal has ever really existed.

It follows, therefore, that the difference between *fiction* and *belief* lies in some sentiment or feeling, which is annexed to the latter, not to the former, and which depends not on the will, nor can be commanded at pleasure. It must be excited by nature, like all other sentiments; and must arise from the particular situation, in which the mind is placed at any particular juncture. Whenever any object is presented to the

39 For ever, to infinity.

40 Simulate, imagine.

41 Lacking.

memory or senses, it immediately, by the force of custom, carries the imagination to conceive that object, which is usually conjoined to it; and this conception is attended with a feeling or sentiment, different from the loose reveries of the fancy. In this consists the whole nature of belief. For as there is no matter of fact which we believe so firmly that we cannot conceive the contrary, there would be no difference between the conception assented to and that which is rejected, were it not for some sentiment which distinguishes the one from the other. If I see a billiard-ball moving toward another, on a smooth table, I can easily conceive it to stop upon contact. This conception implies no contradiction; but still it feels very differently from that conception by which I represent to myself the impulse and the communication of motion from one ball to another.

Were we to attempt a *definition* of this sentiment, we should, perhaps, find it a very difficult, if not an impossible task; in the same manner as if we should endeavour to define the feeling of cold or passion of anger, to a creature who never had any experience of these sentiments. Belief is the true and proper name of this feeling; and no one is ever at a loss to know the meaning of that term; because every man is every moment conscious of the sentiment represented by it. It may not, however, be improper to attempt a *description* of this sentiment; in hopes we may, by that means, arrive at some analogies, which may afford a more perfect explication of it. I say, then, that belief is nothing but a more vivid, lively, forcible, firm, steady conception of an object, than what the imagination alone is ever able to attain. This variety of terms, which may seem so unphilosophical, is intended only to express that act of the mind, which renders realities, or what is taken for such, more present to us than fictions, causes them to weigh more in the thought, and gives them a superior influence on the passions and imagination. Provided we agree about the thing, it is needless to dispute about the terms. The imagination has the command over all its ideas, and can join and mix and vary them, in all the ways possible. It may conceive fictitious objects with all the circumstances of place and time. It may set them, in a manner, before our eyes, in their true colours, just as they might have existed. But as it is impossible that this faculty

of imagination can ever, of itself, reach belief, it is evident that belief consists not in the peculiar nature or order of ideas, but in the *manner* of their conception, and in their *feeling* to the mind. I confess, that it is impossible perfectly to explain this feeling or manner of conception. We may make use of words which express something near it. But its true and proper name, as we observed before, is *belief*; which is a term that every one sufficiently understands in common life. And in philosophy, we can go no farther than assert, that *belief* is something felt by the mind, which distinguishes the ideas of the judgement from the fictions of the imagination. It gives them more weight and influence; makes them appear of greater importance; enforces them in the mind; and renders them the governing principle of our actions. I hear at present, for instance, a person's voice, with whom I am acquainted; and the sound comes as from the next room. This impression of my senses immediately conveys my thought to the person, together with all the surrounding objects. I paint them out to myself as existing at present, with the same qualities and relations, of which I formerly knew them possessed. These ideas take faster hold of my mind than ideas of an enchanted castle. They are very different to the feeling, and have a much greater influence of every kind, either to give pleasure or pain, joy or sorrow.

Let us, then, take in the whole compass of this doctrine, and allow, that the sentiment of belief is nothing but a conception more intense and steady than what attends the mere fictions of the imagination, and that this *manner* of conception arises from a customary conjunction of the object with something present to the memory or senses: I believe that it will not be difficult, upon these suppositions, to find other operations of the mind analogous to it, and to trace up these phenomena to principles still more general.

We have already observed that nature has established connections among particular ideas, and that no sooner one idea occurs to our thoughts than it introduces its correlative,⁴² and carries our attention towards it, by a gentle and insensible movement. These principles of connection or association we have reduced to three, namely, *resemblance*, *contiguity*

42 The thing normally related or connected to it.

and *causation*; which are the only bonds that unite our thoughts together, and beget that regular train of reflection or discourse, which, in a greater or less degree, takes place among all mankind. Now here arises a question, on which the solution of the present difficulty will depend. Does it happen, in all these relations, that, when one of the objects is presented to the senses or memory, the mind is not only carried to the conception of the correlative, but reaches a steadier and stronger conception of it than what otherwise it would have been able to attain? This seems to be the case with that belief which arises from the relation of cause and effect. And if the case be the same with the other relations or principles of associations, this may be established as a general law, which takes place in all the operations of the mind.

We may, therefore, observe, as the first experiment to our present purpose, that, upon the appearance of the picture of an absent friend, our idea of him is evidently enlivened by the *resemblance*, and that every passion, which that idea occasions, whether of joy or sorrow, acquires new force and vigour. In producing this effect, there concur both a relation and a present impression. Where the picture bears him no resemblance, at least was not intended for⁴³ him, it never so much as conveys our thought to him: and where it is absent, as well as the person, though the mind may pass from the thought of the one to that of the other, it feels its idea to be rather weakened than enlivened by that transition. We take a pleasure in viewing the picture of a friend, when it is set before us; but when it is removed, rather choose to consider him directly than by reflection in an image, which is equally distant and obscure.

The ceremonies of the Roman Catholic religion may be considered as instances of the same nature. The devotees of that superstition usually plead in excuse for the mummeries,⁴⁴ with which they are upbraided, that they feel the good effect of those external motions, and postures, and actions, in enlivening their devotion and quickening their fervour, which otherwise would decay, if directed entirely to distant and immaterial objects. We shadow out the objects

of our faith, say they, in sensible types and images, and render them more present to us by the immediate presence of these types, than it is possible for us to do merely by an intellectual view and contemplation. Sensible objects have always a greater influence on the fancy than any other; and this influence they readily convey to those ideas to which they are related, and which they resemble. I shall only infer from these practices, and this reasoning, that the effect of resemblance in enlivening the ideas is very common; and as in every case a resemblance and a present impression must concur, we are abundantly supplied with experiments to prove the reality of the foregoing principle.

We may add force to these experiments by others of a different kind, in considering the effects of *contiguity* as well as of *resemblance*. It is certain that distance diminishes the force of every idea, and that, upon our approach to any object; though it does not discover itself to our senses; it operates upon the mind with an influence, which imitates an immediate impression. The thinking on any object readily transports the mind to what is contiguous; but it is only the actual presence of an object, that transports it with a superior vivacity. When I am a few miles from home, whatever relates to it touches me more nearly than when I am two hundred leagues⁴⁵ distant; though even at that distance the reflecting on any thing in the neighbourhood of my friends or family naturally produces an idea of them. But as in this latter case, both the objects of the mind are ideas; notwithstanding there is an easy transition between them; that transition alone is not able to give a superior vivacity to any of the ideas, for want of some immediate impression.⁴⁶

45 A league is roughly three miles (4.8 km).

46 [Author's note] '*Naturane nobis, inquit, datum dicam, an errore quodam, ut, cum ea loca videamus, in quibus memoria dignos viros acceperimus multum esse versatos, magis moveamur, quam siquando eorum ipsorum aut facta audiamus aut scriptum aliquod legamus? Velut ego nunc moveor. Venit enim mihi Plato in mentem, quem accepimus primum hic disputare solitum; cuius etiam illi hortuli propinqui non memoriam solum mihi afferunt, sed ipsum videntur in conspectu meo hic ponere. Hic Speusippus, hic Xenocrates, hic eius auditor Polemo; cuius ipsa illa sessio fuit, quam*

43 Supposed to be.

44 Silly rituals.

No one can doubt but causation has the same influence as the other two relations of resemblance and contiguity. Superstitious people are fond of the reliques of saints and holy men, for the same reason, that they seek after types or images, in order to enliven their devotion, and give them a more intimate and strong conception of those exemplary lives, which they desire to imitate. Now it is evident, that one of the best reliques, which a devotee could procure, would be the handywork of a saint; and if his clothes and furniture are ever to be considered in this light, it is because they were once at his disposal, and were moved and affected by him; in which respect they are to be considered as imperfect effects, and as connected with him by a shorter chain of consequences than any of those, by which we learn the reality of his existence.

Suppose, that the son of a friend, who had been long dead or absent, were presented to us; it is evident, that this object would instantly revive its correlative

videmus. Equidem etiam curiam nostram, Hostilium dico, non hanc novam, quae mihi minor esse videtur postquam est maior, solebam intuens, Scipionem, Catonem, Laelium, nostrum vero in primis avum cogitare. Tanta vis admonitionis est in locis; ut non sine causa ex his memopriae deducta sit disciplina.—Cicero de Finibus. Lib. v. [“Should I say,” he asked, “that it is natural or just an error that makes us more greatly moved when we see places where, as we have been told, famous men spent a lot of time, than we are if, at some time or another, we hear about the things which they have done, or read something written by them? I, for example, feel moved at present. For Plato comes to my mind who, we know, was the first to hold regular discussions here: that garden nearby not only brings him to memory but seems to make me see him. Here is Speusippus, here is Xenocrates, and here also is his pupil Polemo: it is the place where he used to sit that we see before us. Similarly, when I looked at our senate house (I mean the one Hostilius built and not the new building which seems to me lesser since it has been enlarged) I used to think of Scipio, Cato, and Lælius, and above all of my grandfather. Places can remind us of so much; it is not without good reason that the formal training of memory is based on them.” Cicero, *On the Chief Good and Evil*, from Book V]

idea, and recall to our thoughts all past intimacies and familiarities, in more lively colours than they would otherwise have appeared to us. This is another phenomenon, which seems to prove the principle above mentioned.

We may observe, that, in these phenomena, the belief of the correlative object is always presupposed; without which the relation could have no effect. The influence of the picture supposes, that we *believe* our friend to have once existed. Contiguity to home can never excite our ideas of home, unless we *believe* that it really exists. Now I assert, that this belief, where it reaches beyond the memory or senses, is of a similar nature, and arises from similar causes, with the transition of thought and vivacity of conception here explained. When I throw a piece of dry wood into a fire, my mind is immediately carried to conceive, that it augments, not extinguishes the flame. This transition of thought from the cause to the effect proceeds not from reason. It derives its origin altogether from custom and experience. And as it first begins from an object, present to the senses, it renders the idea or conception of flame more strong and lively than any loose, floating reverie of the imagination. That idea arises immediately. The thought moves instantly towards it, and conveys to it all that force of conception, which is derived from the impression present to the senses. When a sword is levelled at my breast, does not the idea of wound and pain strike me more strongly, than when a glass of wine is presented to me, even though by accident this idea should occur after the appearance of the latter object? But what is there in this whole matter to cause such a strong conception, except only a present object and a customary transition of the idea of another object, which we have been accustomed to conjoin with the former? This is the whole operation of the mind, in all our conclusions concerning matter of fact and existence; and it is a satisfaction to find some analogies, by which it may be explained. The transition from a present object does in all cases give strength and solidity to the related idea.

Here, then, is a kind of pre-established harmony between the course of nature and the succession of our ideas; and though the powers and forces, by which the former is governed, be wholly unknown to us; yet our thoughts and conceptions have still, we find, gone

on in the same train with the other works of nature. Custom is that principle, by which this correspondence has been effected; so necessary to the subsistence of our species, and the regulation of our conduct, in every circumstance and occurrence of human life. Had not the presence of an object, instantly excited the idea of those objects, commonly conjoined with it, all our knowledge must have been limited to the narrow sphere of our memory and senses; and we should never have been able to adjust means to ends, or employ our natural powers, either to the producing of good, or avoiding of evil. Those, who delight in the discovery and contemplation of *final causes*,⁴⁷ have here ample subject to employ their wonder and admiration.

I shall add, for a further confirmation of the foregoing theory, that, as this operation of the mind, by which we infer like effects from like causes, and *vice*

versa, is so essential to the subsistence of all human creatures, it is not probable, that it could be trusted to the fallacious deductions of our reason, which is slow in its operations; appears not, in any degree, during the first years of infancy; and at best is, in every age and period of human life, extremely liable to error and mistake. It is more conformable to the ordinary wisdom of nature to secure so necessary an act of the mind, by some instinct or mechanical tendency, which may be infallible in its operations, may discover itself at the first appearance of life and thought, and may be independent of all the laboured deductions of the understanding. As nature has taught us the use of our limbs, without giving us the knowledge of the muscles and nerves, by which they are actuated; so has she implanted in us an instinct, which carries forward the thought in a correspondent course to that which she has established among external objects; though we are ignorant of those powers and forces, on which this regular course and succession of objects totally depends.

47 In this context, the purpose for the nature and arrangement of things in the universe.