

## CHAPTER XVI

"When I see a billiard ball moving towards another, my mind is immediately carried by habit to the usual effect, and anticipate my sight by conceiving the second ball in motion. But is this all? Do I nothing but *conceive* the motion of the second ball? No surely. I also *believe* that it will move. What then is this *belief*? And how does it differ from the simple conception of any thing? Here is a new question unthought of by philosophers."—HUME, *Abstract*.

"Why, in one instance, do you sign away the reason from the immediate agent, the animal, and fix it upon the Creator, and why in another instance do you confine and attribute it to the immediate agent, the man? Why should the engineer have the absolute credit of his work? and why should not the beaver and the bee? Do you answer that man exhibits reason in a higher, and animals in a lower degree; and that *therefore* his reason is really his own? But what sort of an answer, what sort of an inference, is this?"—J. F. FERRIER, *Introduction to the Philosophy of Consciousness*.

## CHAPTER XVI

### BELIEF IN CAUSALITY: THE NATURE OF CAUSAL 'INFERENCE'

#### *Certainty not limited to the Sphere of Knowledge strictly so called*

WE have seen how limited and narrow is the field to which Hume confines 'knowledge' and 'science'. What lies outside this field is at best merely probable; not, Hume adds,<sup>1</sup> in the sense that it does not allow of *certainty*; probability can amount to proof. But the certainty is of a type quite other than that of demonstration. In knowledge the opposite of what is known is inconceivable; outside the realm of knowledge we have only the sheerly *de facto*, as disclosed in experience. When experience is consistent with itself, there is no experience to oppose to experience, and belief can operate in full force. But as the opposite of every matter of fact is still conceivable, there remains always the possibility—the possibility which justifies Hume in treating the certainty as being no more than the upper limit of probability—that experience may at any time vary from its own past character, presenting to us what has hitherto been uniform as allowing of variation. We are then thrown back upon probability in its more usual sense, namely, as being a calculation as to which of certain experienced alternatives is the most likely to occur.

Hume points out that it is on *philosophical* grounds that the above twofold division is made, and that there is much to be said for popular usage which makes the distinction threefold. It would be needlessly pedantic to insist that it is only probable that the sun will rise to-morrow or that all men must die. Our assurance is indeed solely that of experience, but admittedly it suffices.

<sup>1</sup> Cf. *Treatise*, I, iii, 11 (124).

For this reason, 'twould perhaps be more convenient, in order at once to preserve the common signification of words, and mark the several degrees of evidence, to distinguish human reason into three kinds, viz. *that from knowledge, from proofs, and from probabilities*. By knowledge, I mean the assurance arising from the comparison of ideas. By proofs, those arguments, which are deriv'd from the relation of cause and effect, and which are entirely free from doubt and uncertainty. By probability, that evidence, which is still attended with uncertainty.<sup>1</sup>

*Causality the one Relation which informs us of 'Existences and Objects' not immediately experienced*

As we have seen, knowledge, according to Hume, rests on comparison of ideas, probability on *de facto* experience. Of the seven types of philosophical relations there are four which serve as the foundation of knowledge, strictly so called. The other three vary independently of the ideas involved, and therefore cannot be discovered by the mere comparison of the ideas. These latter relations are *identity, situations in time and place, and causation*.

Hume's classification of 'situations in time and place' among the philosophical relations is, as already noted, a source of much confusion — a confusion which is aggravated by the manner in which he employs 'ideas' and 'objects' as if they were synonymous terms. At this particular point in his argument he quite frankly recognises — though without betraying any sense of this being incompatible with his description of the relations as philosophical — that situations in time and place are objects of direct perception. There is not

in [their] case any exercise of the thought, or any action, properly speaking, but a mere passive admission of the impressions thro' the organs of sensation.<sup>2</sup>

The considerations to which he now draws his readers' attention are simple, and when pointed out are indeed obvious. They are three in number. First, that time and

<sup>1</sup> *Treatise*, I, iii, 11 (124).

<sup>2</sup> *Loc. cit.* (73). How far, taken in another regard, this is consistent with his earlier account of them as being not impressions but a 'manner' of envisaging, we have discussed above, p. 274 ff.

space relations, in respect of the objects between which they are found to hold, are independent variables. One and the same object may be found now in one situation and now in another, now in contiguity with a certain other object and now remote from it. Secondly, that what determines the time and space relations (so far as these can be discovered by way of inference) is solely and exclusively the causal agencies which determine the objects to be what they are and to exist in the relations in which they are experienced. And therefore, thirdly, that it is never upon time and space relations *as such* that we can base any inference to the not yet experienced, but upon them only in so far as they are signs of, or clues to, *causes*, these being either experienced to be, or presumed to be, present and operative.

'Tis only *causation*, which produces such a connexion, as to give us assurance from the existence or action of one object, that 'twas follow'd or preceded by any other existence or action; nor can the other two relations be ever made use of in reasoning, except so far as they either affect or are affected by it.<sup>1</sup>

Thus we are left with identity and causation. How, now, does Hume deal with these two relations? As *both* raising the same fundamental issues? As *both* having reference not to the objects of immediate experience but to the objects of belief, and as therefore *both* alike calling for treatment in the terms which the doctrine of belief prescribes? That, indeed, is how he deals with them later, in Part iv (though still, as we shall find, not treating them as really on a parity with one another). But in Part iii, with which we are now concerned, there is no indication of this. It was, there are good grounds for supposing, by way of the causality problems that Hume worked his way into the identity problems; and, understandably enough, it is by this path he seeks to conduct his readers, disclosing to them the problems first as simplified, and only later in more adequate fashion. At this early stage, he is content to treat identity in a quite cavalier manner, disposing of it by an argument almost exactly similar to the argument employed in his treatment of space and time relations.

The argument, set out a little more explicitly (in the light

<sup>1</sup> *Loc. cit.* (73-4).

of Hume's statements elsewhere) than it is in the present context, is as follows. What, he asks, can justify us in inferring that an object continues the same in the intervals when it is not being experienced, and that it is one and the same object which returns upon us after each interval? We can have no ground whatsoever, he replies, save in so far as we are justified in concluding <sup>1</sup> to the presence of causal agencies which operate in the interval and maintain the object in being. Only so can we judge how far resemblance is evidence of continuing identity and what degree and kind of intervening change is compatible with identity. Experience, for instance, teaches us that it is the nature of fire, so long as it exists at all, to be perpetually undergoing change.<sup>2</sup> On the other hand, we also learn that it is the nature of a moving body to remain self-identical, notwithstanding change of place. When we have no such acquaintance with the causes operating in the successive situations, and no clue as to what they may be presumed to be, no amount of resemblance suffices as evidence that the object has not in the interval been changed. And similarly, no amount of difference is conclusive evidence of non-identity. It is on causation, and causation alone, that all judgment as to identity, or its absence, must be based.

*The Nature of the 'Inference' thereby operated*

Thus, at last, the stage is set for the central argument of Book I. The causal relation is the only relation which can carry the mind beyond what is sensed or felt. How comes it to do so? What is the nature of the causal relation, and of the inference through which this enlargement of experience comes about? By what right, and in what manner, is it thus in a position to aid us?

Let us therefore cast our eye on any two objects, which we call cause and effect, and turn them on all sides, in order to find that impression, which produces an idea of such prodigious consequence.<sup>3</sup>

<sup>1</sup> By the 'irregular' kind of causal inference referred to in *Treatise*, I, iv, 5 (242), and in his discussion of the 'coherence' of perceptions in I, iv, 2 (194 ff.).

<sup>2</sup> *Treatise*, loc. cit. (195).

<sup>3</sup> *Treatise*, I, iii, 2 (75).

The first steps in Hume's argument are so familiar — and in any case a summary statement of them has already been given <sup>1</sup> — that they need be no more than noted in passing. In *no* instance of causal connexion is anything else observable than *contiguity* of cause and effect, and *succession* of the effect upon the cause. This holds equally whether the causation takes place in the physical, in the psycho-physical, or in the psychical domain. The analysis of the causal action of one billiard ball upon another discloses neither more nor less than is discoverable in any other type of instance.

*Hume does not take a merely 'Uniformity' View of Causation*

What, now, makes the causal problem for Hume so difficult of solution is that from the start he refuses to accept as adequate any mere regularity view.<sup>2</sup> He is, of course, ready to admit that contiguity and succession are all that can ever in any single instance be *observed*; it is precisely upon this that he is himself insistent, adapting to his own purposes arguments which had already been employed by Descartes, Locke and Berkeley, by Malebranche and the Occasionalists. But this does not lead him to conclude that there is no such thing as causal agency, and that what has been mistaken for it is merely constancy or uniformity of sequence. On the contrary, he is convinced that it is a form of *connexion*, and further that it is a connexion which is necessary, and that it is this *necessity* which is its essential differentia. The problem which he sets himself to solve is that of determining the character of this necessary connexion, and the source of our idea of it.

Shall we then rest contented with these two relations of contiguity and succession, as affording a compleat idea of causation? By no means. An object may be contiguous and prior to another, without being consider'd as its cause. There is a NECESSARY CONNEXION to be taken into consideration; and that relation is of much greater importance, than any of the other two above-mention'd.<sup>3</sup>

"To begin regularly", we must, Hume says, first consider the *idea* of causation. We cannot reason justly without a

<sup>1</sup> Above, p. 88 ff.

<sup>2</sup> Cf. above, p. 91.

<sup>3</sup> *Loc. cit.* (77).

"perfect" understanding of the idea about which we are reasoning; and the principle, which has already been adopted, is that such perfect understanding is only to be obtained by tracing the idea to its origin in some primary impression.

The examination of the impression bestows a clearness on the idea; and the examination of the idea bestows a like clearness on all our reasoning.<sup>1</sup>

But as we have just noted, the required impression is still to seek. We do not get it where we should have expected to find it, through observation of particular instances of causation. Must we, then, Hume asks, despair of success, and conclude that here we have an exception to the principle that every idea is traceable to an impression? The principle has been firmly established (so much Hume is prepared to assume), and is not to be thus lightly called in question. True, we have looked in all the likely places, i.e. in all the types of instance in which causation is believed to be operative. No one of them has proved in any degree more illuminating than any other. They one and all concur in exhibiting only contiguity and sequence. But a more searching examination has yet to be made.

*The Nature of causal 'Inference' must first be determined, viz. as not being Inference but as itself a causally determined Mode of Belief*

Hume's method of procedure, from this point on, is not the least paradoxical feature in his teaching; and on first acquaintance must seem, as he himself says, an unnatural perversion of the proper order of enquiry. As we cannot find any impression, nor consequently any idea, of what can be meant by the term 'causation', he invites us to turn aside and examine the inference which is based upon it. Perhaps examination of the inference will give us the clue we are seeking, and so guide us to the impression which we have failed to find by the more direct method of approach. Stated in the simplest possible terms, Hume's problem, as thus defined, is therefore as follows:

<sup>1</sup> *Treatise*, I, iii, 2 (74-5).

Let us now see upon what our *inference* is founded, when we conclude from [a cause] that [its effect] has existed or will exist. Suppose I see a ball moving in a straight line towards another, I immediately conclude, that they will shock, and that the second will be in motion. This is the inference from cause to effect; and of this nature are all our reasonings in the conduct of life: on this is founded all our belief in history: and from hence is derived all philosophy, excepting only geometry and arithmetic. If we can explain the *inference* from the shock of two balls, we shall be able to account for this operation of the mind in all instances.<sup>1</sup>

When, now, Hume proceeds to the analysis of causal *inference* (in Section 6 of Part iii), there at once comes into view — and this is one of the reasons which Hume has all along had in mind in proposing this 'seemingly preposterous' reversal of method — a new, third feature of causal connexion, viz. *constancy* of conjunction. This is not, of course, a feature of causal connexion viewed as a 'natural' relation; the natural relation holds only between particular existents, and its occurrence, *quâ* occurrence, is a one-time happening. When Hume speaks of constancy of conjunction he is viewing the causal relation not as a natural but as a 'philosophical' relation — to use the terminology which he has chosen to adopt. To take the example which he employs in the *Treatise*, and upon which he dwells at greater length in the *Abstract* and in the *Enquiry concerning Human Understanding*: when one billiard ball moves another, the occurrence is distinct *in existence* from every other instance of a similar happening between these and other balls.<sup>2</sup> If, however, we proceed reflectively to compare several resembling instances with one another, we find this third factor, constancy of conjunction. Experimenting with balls of the same kind in a like situation, we find that

every object like the cause, produces always some object like the effect.<sup>3</sup>

This is why Hume entitles causation a 'philosophical' relation: he is treating it as descriptive not of single instances of causal connexion, but of the type or kind to which the

<sup>1</sup> *Abstract* (13). Italics not in text.

<sup>2</sup> In the *Treatise* (I, iii, 14 [164]) this is the sole point which the example of the billiard balls is employed to illustrate.

<sup>3</sup> *Abstract* (11 ff.). Cf. *Enquiry* I, 4 (28 ff.).

instances belong, and as obtained in and through comparison of them. Experience, when thus discursively reflected upon, shows that the instances fall into types or kinds, and that for each type or kind the relations of contiguity and priority are as a matter of fact constant.

Is this, then, the clue which we have been seeking? Do we mean by causal connexion simply constancy of sequence, in distinction from sequences which are variable? And is it this constancy which justifies inference?

To the second and third of these questions Hume replies quite decisively in the negative. We can look for no such easy deliverance from our difficulties. What we mean by causal connexion is something more than, and something different from, any mere uniformity of sequence; and it is because this is so that our causal inferences cannot be justified merely by reference to the uniformity. The uniformity is, however, the one new feature which analysis of causal inference has thus far brought to our notice. Is it, then, in no respect serviceable as a clue? This time Hume gives a more encouraging answer. If, he says, we take this third feature of causal happenings as a clue — though as no more than a clue — it will be found helpful; and it is by so using it that he conducts us through a long and intricate labyrinth of argument — the devious and lengthy discussions in Sections 6 to 15 of Part iii — to his final conclusions, so different from any which he has yet even so much as suggested. In the final outcome, so-called causal inference is found not to be inference at all: the apprehension of matters of fact and existence is not *in idea* any more than in sense-perception and memory obtainable in an intellectualist or rationalist manner by way of *inference*. In other words, matters of fact and existence are, in this case also, objects not of knowledge but solely of belief; and the character of belief, distinguishing it from knowledge, is that it is *causally*, not logically or evidentially, conditioned.

This, indeed, is precisely the reason why Hume finds uniformity of sequence so helpful as a clue. Though not in itself the content or differentia of the impression or idea of causal connexion, it is none the less a quite indispensable element in the 'complication of circumstance' upon which

that impression follows as an *effect*. The suggestion made above, that we have failed to find this impression only because we have been looking for it in the wrong place, thus turns out to be correct. Whereas we have been seeking for it in the observed, and in what can be learned from reflexion upon the observed, it turns out to lie solely in the observer, namely, as being the *effect* which the observation of repeated sequence has upon the mind. This observation of repeated sequence generates — *causally* generates — in the mind a custom or habit. This custom or habit, in turn, itself generates — again in a *causal* manner — the feeling of *necessitated* transition; and it is upon the pattern of this impression that our ideas of causal connexion have come to be modelled.

In treating of *Liberty and Necessity*<sup>1</sup> Hume points out that if causes were variable we could never have known anything about them, since we should not have been in a position to acquire any impression, nor consequently to have any notion whatsoever, of causation. This would be so, not because the notion of causation is exhausted in that of constant conjunction and is identical with it, but because in the absence of constant conjunction the situation in which alone the notion of necessary connexion, and so of causation, can be acquired by us would not have arisen. For, as he insists, *two* distinct factors are involved in the idea of necessary connexion, one as *conditioning* it, and one as *constituting* it. Constancy of conjunction is requisite as that through which alone a *custom* or *habit* can be acquired. This custom or habit itself, in turn, has a twofold effect; it determines the mind to pass from a present cause to the idea of that which has been its usual attendant; and in the process of doing so it also generates a *feeling* of necessitated transition. It is this feeling, thus complexly conditioned, which *constitutes* our impression, and therefore our idea, of causation; and through it belief in a *necessary*, and thereby in a *causal*, connexion, is first made possible to the mind.

The fact that the impression is a feeling merely, and that the nature and possibility of causal connexion are not by its means made any the more *intelligible* to us, does not, Hume

<sup>1</sup> *Enquiry* I, 8 (82); Cf. *Treatise*, II, iii, 1 (400). Cf. also below, p. 382.

holds, unfit it for the functions which it has to subserve. These functions connect exclusively with belief; and for the purposes of belief, though in nowise of knowledge, Hume takes it as sufficing.

But this is to anticipate. Let us consider each of the two stages in Hume's argument: (1) his analysis of causal 'inference' and of the processes whereby the 'inference' issues in belief; and (2) his account of the origin of the impression of *necessitated* connexion and of the part it plays in mediating belief. The first stage will occupy the rest of this chapter; the second will be the subject of the next.

*The Analysis of causal 'Inference': the 'Inference' rests on Custom, not on Reason*

When we approach the problem of causal connexion from the point of view of our inferences to it, the newly discovered relation of constant conjunction is certainly relevant and important. Admittedly, in arguing from a present cause to an absent effect which is its usual attendant, we are in fact arguing on the basis of past experience, and in especial of the constancies which this exhibits. But precisely at the point at which the question of the *justification* of the inference arises the constancies fail us. They lead us up to it, but they have no passport over the frontier that separates the past and present from the future. For past and present experiences can bear witness only to the past and the present. In inferring to the future we are not merely following the guidance of experience, we are likewise, in addition, *presuming* a resemblance between the objects of which we have had experience and those of which we have had none. The validity of the inference is the validity of the presumption; and when we ask for evidence of the truth of the presumption, neither reason nor experience can be of any avail. Reason cannot aid us; it has no jurisdiction, and is therefore unable to operate, in respect of matters of fact and existence. Nor can experience help us; it can instruct us only in regard to the sheerly *de facto*; it is necessarily silent in respect of all that has not yet existed.

Can we not, however, argue that while experience yields

no *certainty* as to the future, it may yet instruct us as to what is *likely* to happen in the future? But this too, as Hume points out, is 'no thoroughfare'. Probability, in its distinction from demonstration, does, indeed, rest on an appeal to experience; but it concerns only those happenings in regard to which there is a *conflict* of experience. If an event happens now in one way and now in another — a die falling now with one face up and now with another, rhubarb sometimes purging and sometimes failing of this effect — we can proceed to calculate, on the basis of the conflicting experiences, the probability of the coming about of this and that effect. But when experience is uniform with itself — as in the issue before us — we have no experience to set against experience, and no ground therefore for any calculation of probability. If a past uniformity — e.g. the sun's having risen every day in the past — can be said to make it probable that the uniformity will continue, the probability rests on the presumption that the future will be similar to the past, not the presumption on the probability; and probability cannot, therefore, be appealed to in support of the presumption. The same 'principle' cannot be both cause and effect of another. This is axiomatic; and is perhaps, Hume declares, the only proposition concerning the relation of cause and effect which is either intuitively or demonstratively certain. We do, of course, expect past uniformities to continue, and are surprised when they fail to do so; and the more widespread and fundamental the uniformity the greater our surprise. At the moment our query is not, however, in regard to the mind's behaviour and its natural certainties, but in respect of the *logical* justification for the opinions adopted. They can be justified neither as demonstrable nor as probable. The mind has no hesitation in adopting them, and yet no kind of 'reason' can be offered in their support.

Hume's solution of the dilemma now follows. There is, he argues, no such thing as causal *inference*. When the mind passes from an idea or impression of one object to that of another, it is the imagination which is operating, not the understanding. It is custom and not reason, habit and not evidence, which is at work. Custom or habit here operates in and through the laws of association; and it is

upon this associative union of ideas that the 'inference' rests.

Had ideas no more union in the fancy than objects seem to have to the understanding, we could never draw any inference from causes to effects, nor repose belief in any matter of fact. The inference, therefore, depends solely on the [associative, causally efficacious] union of ideas.<sup>1</sup>

'Tis not, therefore, reason, which is the guide of life, but custom. That alone determines the mind, in all instances, to suppose the future conformable to the past. However easy this step may seem, reason would never, to all eternity, be able to make it.<sup>2</sup>

Custom, then, is the great guide of human life. . . . 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.<sup>3</sup>

Hume's next step is of great importance for the understanding of the positions to which he is thus, by stages, introducing his readers. The *reflexion* upon past experiences, whereby the *constancy* of conjunction is noted, is not, he holds, any essential part of the so-called inference. When objects have been constantly conjoined in our experience, they thereby determine — in a manner no more explicable than is the operation of bodies — a union in the imagination, with the result that when one is present we *immediately* form an idea of its usual attendant.

Thus tho' causation be a *philosophical* relation, as implying contiguity, succession, and constant conjunction, yet 'tis only so far as it is a *natural* relation, and produces an union among our ideas [that 'inference' occurs].<sup>4</sup>

#### *How causal 'Inference', in turn, conditions Belief*

But we conceive many things which we do not believe; there still remains for explanation the *assent* which we give to the ideas associatively suggested, i.e. to our apprehension

<sup>1</sup> *Treatise*, I, iii, 6 (92).

<sup>2</sup> *Abstract* (16).

<sup>3</sup> *Enquiry* I, 5 (44-5); e.g. of the 'speculations' involved in the irregular type of reasonings that is occasioned by the 'coherence' of our perceptions. Cf. below, pp. 472, 484.

<sup>4</sup> *Treatise*, I, iii, 6 (94).

of them as standing for real, though not actually experienced, existents. It is in the process of accounting for this feature of the 'causally inferred' that Hume at last finds opportunity (in Sections 7 to 10) to develop in detail his new and revolutionary doctrine of belief. As I have already given a statement of it,<sup>1</sup> the only points which now call for special notice are the following.

The account which Hume here gives of belief is confined to belief in its relation to *ideas*; and it is therefore from this limited point of view that belief is defined.

An opinion, therefore, or belief may be most accurately defin'd, A LIVELY IDEA RELATED TO OR ASSOCIATED WITH A PRESENT IMPRESSION.<sup>2</sup>

The doctrine, developed on lines closely parallel with his doctrine of sympathy in Book II, consists in four main tenets:

- (1) Just as sympathy is not a separate sentiment or passion, so belief is not a separate impression or idea. It is a name merely for the *manner* in which certain ideas come to be apprehended.
- (2) The manner of apprehension is that which is native to every *impression*, whether it be a passion, emotion, sentiment or sense-impression.
- (3) The *sole* difference between any impression and its idea — primitiveness of origin and physiological antecedents apart — is a difference merely of force and vivacity, and an idea requires therefore only to be enlivened to operate on the mind in the same manner as the impression to which it corresponds.
- (4) All impressions (and not merely, as declared in the doctrine of sympathy, the impression of the self), have the power of transfusing their native vivacity into any idea related to or associated with them. That impressions which are passions possess this power in an eminent degree has always been recognised; that it is the prerogative of any and every impression is what Hume sets himself to prove; and his proof, as is requisite in proof of a relation which is causal, consists in the manifold

<sup>1</sup> Above, pp. 209-12, 219 ff.

<sup>2</sup> *Treatise*, I, iii, 7 (96).

observations and 'experiments' which he enumerates at length in Sections 8 to 10.

This last contention, it will probably be agreed, is one of the least convincing tenets in Hume's system. No one can deny that the passions, emotions and sentiments enliven the mind. This is of their very essence: it is for the purpose of stimulating us to action that nature has endowed us with them. Sense-impressions have also a remarkable capacity of lending their own distinctively sensational vivacity to the ideal factors which combine with them to constitute sense-perceptions. But when Hume professes to have shown that this power extends to a similar enlivening of *free* ideas, his evidence proves insufficient. Indeed, in professing to establish this thesis, he is carried very much further than the requirements of his argument make it at all desirable that he should go. Instead of accounting for belief, he accounts rather for the *excessive* influence of education and propaganda, for the *undue* influence of whatever happens to have a certain constancy in the individual's environment, and for the *over-beliefs* that spring up and spread so rankly in the field of religion. If any and every impression has, as he declares, an *infective* power, it is not surprising that belief should know no proper bounds, and, favoured as it is by man's essentially social make-up, should so spread in *epidemic* forms, to the perversion of all proper standards of thought and action. As we have already noted,<sup>1</sup> it is precisely because of this that Hume regards "a moderate scepticism" as being a necessary and indispensable supplement to his naturalistic teaching. Only so can the self be guarded against the malign influences which are ever present and ever ready, within the very citadel of the self, as in the society around it, to deceive and mislead us.

#### *An Objection which Hume endeavours to meet*

There is thus an obvious objection to Hume's theory of belief which has somehow to be met. To succeed in accounting for the assent given to ideas reached by way of causal inference, Hume must not merely explain why they are

assented to, but also why they alone are thus accepted by the mind. Causality is one of the three natural relations of association. Why is it that it alone leads to belief? The other two relations are equally natural, and they too tend to lead the mind from some given impression to an idea. Whence, then, the difference between the *beliefs* due to causal association and the mere *suggestions* due to association by contiguity and resemblance?

This is an objection which Hume himself discusses. After citing what is not very relevant, the instances in which we arbitrarily use (as the poet may do) the relations of contiguity and resemblance in 'feigning' this and that situation, and in which the mind is aware that the fictions are based on 'pure caprice', and in which consequently their enlivening influence on the mind is proportionately weakened, he passes to the instances that are strictly relevant and parallel. In these instances, he allows, the contiguity and resemblance, in bringing ideas into connexion with impressions, have some effect in enlivening the ideas. But instead of meeting the objection, as an *objection*, he proceeds to treat it as an argument in support of his main contention that belief is nothing but an enlivened idea. For surely, he argues, if mere contiguity and resemblance can have this type of effect, it is not surprising that it should operate so much more forcibly in the case of a relation which is invariable, and in which the element of caprice can therefore play no part. The objection, he therefore suggests, so far from being inconsistent with his main argument, is an additional support to it.

To begin with contiguity; it has been remark'd among the *Mahometans* as well as *Christians*, that those *pilgrims*, who have seen MECCA or the HOLY LAND are ever after more faithful and zealous believers, than those who have not had that advantage. A man, whose memory presents him with a lively image of the *Red-Sea, and the Desert, and Jerusalem, and Galilee*, can never doubt of any miraculous events, which are related either by *Moses or the Evangelists*. The lively idea of the places passes by an easy transition to the facts, which are suppos'd to have been related to them by contiguity, and increases the belief by increasing the vivacity of the conception. The remembrance of these fields and rivers has the same influence on the vulgar as a new argument; and from the same causes.<sup>1</sup>

<sup>1</sup> Above, pp. 130-32.

<sup>1</sup> *Traité*, I, iii, 9 (110-11).



The fact that resemblance also operates in this manner can be used, Hume maintains, to explain what would otherwise be inexplicable. The instances which he cites are the following. The relation between any given cause and its effect is, in all cases, as we have noted, sheerly *de facto*, and cannot be learned save through experience. Why, then, have some philosophers supposed that the communication of motion on impact is evident, and could have been inferred independently of all experience? Is it not that the relation of resemblance between cause and effect is here "united to experience", and so binds the objects as to lead us to imagine them to be inseparable?

Resemblance, then, has the same or a parallel influence with experience; and as the only immediate effect of experience is to associate our ideas together, it follows, that all belief arises from the association of ideas, according to my hypothesis.<sup>1</sup>

Hume's next instance has an interest of its own, because of the part which it has played in the psychologist's account of visual perception.

'Tis universally allow'd by the writers on optics, that the eye at all times sees an equal number of physical points, and that a man on the top of a mountain has no larger an image presented to his senses, than when he is cooped up in the narrowest court or chamber.<sup>2</sup>

The varying magnitudes which appear to be actually seen are matters of sheer 'inference', i.e. they are only ideas, but so enlivened as to strike the mind precisely in the manner of sensation. Now the question which Hume raises is why we obtain a more lively and vivid conception of the vast extent of the ocean when we view it from a promontory than when we are merely inferring it from hearing the roaring of the waters. Is there not the same disproportion between the image and the inference in both cases? And is not the inferential process the same in both? The very marked difference must be due, he says, to the fact that in addition to the customary conjunction there is present, in the case of the visual image, and not in the case of the auditory image, a resemblance between it and that which is inferred from it. This resemblance

strengthens the relation, and conveys the vivacity of the impression to the related idea with an easier and more natural movement.<sup>3</sup>

<sup>1</sup> *Treatise*, I, iii, 9 (112).

<sup>2</sup> *Loc. cit.*

<sup>3</sup> *Loc. cit.*

The reinforcing effect of resemblance Hume also employs to account for a weakness in human nature than which none, he says, is more universal and conspicuous — credulity, a too easy faith in the testimony of others. Here, again, we have conjunctions which rest on causal complexities. In arguing from testimony we are, in Hume's view, arguing from effects to causes. For it is experience, and experience alone, which assures us of the veracity of men. Experience, therefore, here, as in all other cases of causal connexion, is our sole reliable guide; it alone can give us any assurance of the veracity of men. Why, then, do we so seldom regulate ourselves by it? Why have we such a propensity to believe whatever is reported, and this even in regard to "apparitions, enchantments, and prodigies" entirely contrary to daily experience and observation? Why do we thus overrate the reliability of the connexion between testimony and fact? The reason is as before. The testimony proceeds by conveying to us an *image*, not a merely conjoined effect; it depicts a situation in duplicate, and this, as being a duplicate, only needs to be enlivened in order to have on us much the same effect as if we had been actually present to it on its occurrence.

Other effects only point out their causes in an oblique manner; but the testimony of men does it directly, and is to be consider'd as an image as well as an effect. No wonder, therefore, we are so rash in drawing our inferences from it, and are less guided by experience in our judgments concerning it, than in those upon any other subject.<sup>1</sup>

Whereas the presence of resemblances thus fortifies belief, the want of it in any very great degree is able, Hume further observes, almost entirely to destroy it. Men can then be as obstinately incredulous as in other circumstances they are blindly credulous; and this precisely in matters in which they make professions of belief, as for instance in matters that regard the life after death.

I ask, if these people really believe what is inculcated on them, and what they pretend to affirm; and the answer is obviously in the negative. As belief is an act of the mind arising from custom, 'tis not strange the want of resemblance should overthrow what

<sup>1</sup> *Loc. cit.* (113).

custom has establish'd, and diminish the force of the idea, as much as that latter principle encreases it. . . . There scarce are any, who believe the immortality of the soul with a true and establish'd judgment; such as is deriv'd from the testimony of travellers and historians.<sup>1</sup>

*'Experience' ultimately employed by Hume in a normative Sense: yet causal Agency, even when reflectively determined, determined only as an Object of Belief*

In the end Hume is constrained to recognise that the objection which he has endeavoured to convert into an argument in support of his view of belief is a more serious objection than he was at first inclined to allow. If any and every impression has an enlivening power; if even in 'inference' causal conjunction operates in the same manner as any mere custom or habit; if, further, public opinion and whatever happens to prevail in any society are influences sufficient to generate habit; and if, lastly, the relation of resemblance enters to reinforce such uniformities, it is evident that belief can be evoked by, and is at the mercy of, all sorts of influences which have a source quite other than that of causal connexion. In saying that custom is king, Hume has left undecided the all-important issue as to when its sovereignty is legitimate and when it is usurped, when it should be loyally accepted, and when it ought to be challenged. How, if custom, without qualification, is the ultimate source of belief, can Hume claim, as he does, to distinguish between the vulgar and the wise? The difference between them he traces to its source in the assumption of the vulgar that causes can, like human beings, vary in their behaviour — an assumption which he is not himself prepared to accept. Consequently, Hume's real position is not that custom (or habit) as such is king: it has no manner of right to lay claim to any such dignity. It is experience — and custom only in so far as it conforms to and is the outcome of experience — which is, and ought to be, the ultimate court of appeal, a court of appeal which makes possible a distinction between those customs and habits that are reliable and beneficial and those that are not. Experience in this *normative* sense is the experi-

<sup>1</sup> *Treatise*, I, iii, 9 (114-15).

ence which he has set himself to define and delimit; and the clue which he follows in his analysis of inference is the causal relation viewed as a *philosophical* relation, i.e. as a relation which has as its characteristics invariability and consequent universality of application. As he consistently teaches, this is the one relation concerning matters of fact and existence which can enable us to advance beyond actual experience; and it does so by enabling us to construct a 'system' within which all actual given experiences can be so connected through the interpolation of ideal links, and consequently so ordered in relation to one another, that we can find our way from any one of them to any other. But, as he has to recognise, this is not the order of our immediate experiences; it is a *believed* order in which independently existing objects *determine* one another in a fixed and established manner.

*Why reflective Thinking is required to supplement Custom*

For Hume himself concedes that not all regularities are reliable, that not all customs are good customs. There are regularities that hold only for a limited experience. There are customs which are due to this and that order of society, to this and that type of education, and which run counter to the customs by which, for those who have a wider and more varied experience, they have come to be displaced. This, in Hume's view, is why reflective thinking and the devices to which it leads in scientific enquiry and in social organisation, however in one sense 'artificial', are at once so natural and so indispensable for the purposes of human life. An entirely unreflective life is for man as impracticable as it is unnatural.

This is true for two connected but very different reasons. (1) The individual's experiences, as they occur to him, amidst the accidents of life, are incomplete, ever-changing and discontinuous. It is necessary for him, in his specifically *human* type of life, to provide for himself a fixed background, by reference to which he can be in a position to interpret and co-ordinate the ever-varying 'perceptions' that come along

in the order of his actual experiencing of them. This background consists in a twofold 'system' (Hume's own term). There is the system of the memory,

comprehending whatever we remember to have been present, either to our internal perception or senses; and every particular of that system, join'd to the present impressions, we are pleas'd to call a *reality*.<sup>1</sup>

Secondly, there is the system of causally connected ideas, i.e. of belief.

As [the mind] feels that 'tis in a manner necessarily determin'd to view these particular ideas, and that the custom or relation, by which it is determin'd, admits not of the least change, it forms them into a new system which it likewise dignifies with the title of *realities*.<sup>2</sup>

This second system is 'the object of the judgment'.

'Tis this latter principle which peoples the world, and brings us acquainted with such existences, as by their removal in time and place, lie beyond the reach of the senses and memory. By means of it I paint the universe in my imagination, and fix my attention on any part of it I please. I form an idea of *Rome*, which I neither see nor remember; but which is connected with such impressions as I remember to have received from the conversation and books of travellers and historians. This idea of *Rome* I place in a certain situation on the idea of an object, which I call the globe. I join to it the conception of a particular government, and religion, and manners. I look backward and consider its first foundation; its several revolutions, successes, and misfortunes. All this, and every thing else, which I believe, are nothing but ideas;<sup>3</sup> tho' by their force and settled order, arising from custom and the relation of cause and effect, they distinguish themselves from the other ideas, which are merely the offspring of the imagination.<sup>4</sup>

<sup>1</sup> *Treatise*, I, iii, 9 (108).

<sup>2</sup> *Loc. cit.*

<sup>3</sup> "All this, and everything else, which I believe, are nothing but ideas." This is one of the many statements in which Hume's failure to distinguish between the objects of immediate experience (*viz.* impressions and ideas, which as such, on Hume's own expressly avowed tenets, are exhaustively and infallibly apprehended) and the objects of belief (which as objects of belief are *not* immediately experienced) so greatly obscures the tendencies of his argument, confirming his readers in the view that belief is merely a certain immediately experienced degree of 'force and liveliness' in this and that idea, and not, as he teaches in Part iv of Book I, a *judgment*, an *attitude*, in which the mind is carried beyond the immediately experienced. Cf. below, pp. 396-7.

<sup>4</sup> *Loc. cit.*

The second system — this is the difference between it and that of the memory — is built upon the basis of the experiences of the self as *supplemented* through the testimony of other selves, of books, etc. Through processes of interpolation the order of the causal happenings is rendered consistent with itself and with the disjointed and discontinuous experiences to which it endeavours to give coherence.

Now Hume's ultimate criterion of truth is conformity with the *realities* of these two systems. If we are referring to what has happened to the self in the past or is happening to it now, it is conformity with the system of the memory that decides. If we are referring to what has happened or is now happening to other selves, or to what takes place independently of any self, we have to rely upon *human* experience, i.e. upon all the possible sources whereby the interpolations may be rendered as complete as possible and as specific as possible. For it is only in proportion as the customs generated by the uniformities of the individual's experience are reinforced by the uniformities exhibited in this wider experience, that as a reflective being he can continue to accept them.

(2) But there is also a further reason why reflective thinking, and the criteria to which it appeals, are so indispensably necessary for the conduct of human life. Causal connexion only very occasionally holds between our immediately sequent experiences. Our mental experiences are complexly conditioned, and very seldom derive from one another. Each is conditioned by causes outside the individual's immediate experience, and it is for the most part because each is independently determined at the moment when it occurs that the two follow upon one another, or coexist, as the case may be. The conjunction of two immediately sequent experiences can be evidence of causal connexion only in those cases in which one perception evokes another, as when an image appears before the mind on being associatively summoned, or when an idea arouses desire; and even so all that is certain is that there is here a complication of circumstance in which causation is at work, not that the one experience is *by itself* the cause of the other. This is why reflective activities are indispensable. Only through

reflective scrutiny can the uniformities which are truly causal be distinguished from those which, as resting on contingently<sup>1</sup> determined *combinations* of causes, may at any moment come to vary. Hume, before the close of Part iii, himself draws attention to these important considerations, but all too briefly, and not until he has stated the issues in the excessively and misleadingly simplified manner of the earlier sections.<sup>2</sup> Had he reversed the order of his exposition, and so made clear from the start that the uniformities in which causal connexions exhibit their presence are not the uniformities of ordinary experience, but those of an experience that has been analysed and reflectively dealt with; and had he at the very beginning taken account of what is no less relevant and important for the proper understanding of his argument, that the causal connexion is not between the immediately experienced perceptions, but between independently existing objects, i.e. between those objects which, through processes of interpolation and otherwise, the mind apprehends as constituting the all-conditioning system of realities, he could not have argued, in the manner in which he does, that "custom is king". Clearly on his final view, as has already been indicated, custom is far from being king. It is because it so usually *usurps* sovereign power that reflective thinking, and the logic which ought to govern it, are imperatively demanded. This, too, is why a philosophy alertly sceptical of what ordinarily prevails is so indispensable. It is in his reflective powers that man differs from the brute animals; and it is because of the evils to which these powers have given rise, no less than of the benefits which they have conferred, that human history is what it is. Custom is rather of the nature of a heavy fly-wheel; it steadies a society in the condition at which it has arrived, perpetuating the beliefs and modes of action which have come to prevail. Nature through its necessities, and reflexion through its recognition of them, are the inseparable twin-sources through which alone changes can come about; and it is solely in virtue of the *normative* standards supplied by the latter that a sceptical

scrutiny of prevailing beliefs and practices and a programme for their reformation are, in Hume's view, the tasks which fall to a philosophy worthy the name.

*The excessive Emphasis upon Custom in the early Sections due to Hume's Preoccupation with Associationist Hypotheses*

The excessive emphasis upon custom, in the early sections of Book I, is one among the many disturbing effects which follow from Hume's manner of combining his associationist teaching with his other doctrines. His secondary plot for the time being usurps upon, and occasionally runs counter to, his main plot: belief as determined through a causation which acts as a *natural* relation usurps upon belief as regulated through a causation which is reflectively determined in a *philosophical* manner; psychology, as exposing the mechanisms through which belief is causally produced, usurps upon logic, as defining the conditions under which it can be intelligently regulated. Resemblance, familiarity, recency, and accidental emotional accompaniments such as surprise or fear, are then all viewed as operating in the same manner as 'arguments', namely, by enlivening any ideas that may chance to be attendant upon them. Inference is declared not to be inference, but merely enlivened expectation; and any cause which enlivens ideas is viewed as operating in precisely the same manner as any other. Beliefs are neither true nor false; they occur or do not occur. They can be distinguished only through the consequences, in the way of causally operated effects, to which they lead.

Thus all probable reasoning is nothing but a species of sensation. 'Tis not solely in poetry and music, we must follow our taste and sentiment, but likewise in philosophy. When I am convinc'd of any principle, 'tis only an idea, which strikes more strongly upon me. When I give the preference to one set of arguments above another, I do nothing but decide from my feeling concerning the superiority of their influence. Objects have no discoverable connexion together; nor is it from any other principle but custom operating upon the imagination, that we can draw any inference from the appearance of one to the existence of another.<sup>1</sup>

<sup>1</sup> Cf. below, on Hume's treatment of 'chance', p. 421 ff.

<sup>2</sup> Another simplification (noted below, pp. 429-30) is his way of speaking as if all instances of a uniformity were exactly alike.

<sup>1</sup> *Treatise*, I, iii, 8 (103).

But even in the sections in which this teaching is dominant there are many counter-statements which show that Hume intends to combine with it — with the implication that the two points of view are consistent with one another — a teaching of a very different kind, namely, that it is only *causal* inferences, i.e. that it is only those customs which can survive reflective scrutiny, which *ought* to be relied upon. Here, too, when he is viewing Nature in this normative fashion, he views *human* nature as being the agency through which it acts. The 'natural beliefs', in their character and functions, correspond in the theoretical field to the passions and sentiments in the field of morals. To such beliefs reason, Hume teaches, *ought* to be subservient. All too frequently we proceed otherwise, accepting as of equal authority what are no more than mere chance influences, and so bring 'reason' into conflict with itself, because into conflict with the uniformities which more widely prevail. When Hume says 'ought', he means, of course, an 'ought' which he interprets in a sheerly naturalistic manner; it is a hypothetical, not a categorical 'ought'. The beliefs which ought to be accepted are, he teaches, beliefs that Nature itself marks out for us. In their fundamental forms, as 'natural' beliefs, we have no choice but to accept them; they impose themselves upon the mind. And as regards the derivative beliefs to which our specific experiences give rise, these too (like the artificial virtues in the field of morals) are determined for us: Nature has endowed us with the reflective powers which, when rightly directed, commit us to them. For Hume, that is to say, logic and ethics rest on one and the same basis: experience, as extended in and through our *reflective* activities, is normative for both.

## CHAPTER XVII

"It is not possible for us to form the most distant idea of [necessity and power], when it is not taken for the determination of the mind, to pass from the idea of an object to that of its usual attendant."—HUME, *Treatise*.

## CHAPTER XVII

### BELIEF IN CAUSALITY: THE ORIGIN OF THE IDEA OF NECESSITY

#### *The Source of the Idea of necessary Connexion*

WE must now return upon our steps. We have not yet considered in sufficient detail an all-important stage in Hume's main argument,<sup>1</sup> namely, his account of the origin of the impression of causal connexion, and of the rôle which it plays in mediating belief. This is the question which Hume has been keeping in reserve throughout all the preceding discussion, and which first comes up for treatment in Section 14, *Of the idea of necessary connexion*.

Having thus explain'd the manner, *in which we reason beyond our immediate impressions, and conclude that such particular causes must have such particular effects*; we must now return upon our footsteps to examine that question, which first occur'd to us, and which we dropt in our way, *viz. What is our idea of necessity, when we say that two objects are necessarily connected together?*<sup>2</sup>

Throughout Hume has never questioned that we *do* have an idea of necessary connexion; and it is because of his assurance on this point that on failing to find it in the observed, he has sought for it elsewhere, indirectly, through a study of the type of 'inference' which rests upon it. As I have suggested, what has led him to favour this method of approach is the analogy which he has perceived, and which he has set himself to confirm and establish, between value-judgments and judgments concerning matters of fact and existence. If the basis of both these fundamental types of judgment is in kind one and the same, namely, feeling, never insight or any inference based on evidence, then empirical

<sup>1</sup> Cf. above, p. 374.

<sup>2</sup> *Treatise*, I, iii, 14 (155). Italics in text.

'inference' will turn out, on examination, not to be inference, and the causes which determine it — as determinant of our *judgments* — will be precisely the natural necessity for which we have been looking, and which, while all the time imposing itself upon us, has hitherto, just because it is thus withdrawn within the mind, evaded our discovery.

The study of causal inference has shown that no causal uniformity, however constant, affords evidence, either rational or empirical, in *justification* of our belief that it will continue. The belief is psychologically, not logically, grounded. The uniformity operates upon the mind in a sheerly natural manner; it generates a custom or habit, a type of cause with which experience has made us familiar, and which as a *vera causa* is responsible for a great variety of empirical effects. Among these effects we have, Hume contends, to count so-called causal inference. Custom carries the mind from causes to effects, and from effects to causes, according as it is the causes or the effects which are at the moment being observed. This explains the *expectation*, or better, *anticipation*, which enters into all inference. The effect of custom is then, in turn, supplemented and reinforced by a further operation, as sheerly natural as custom itself. This further operation Hume traces to a "quality of human nature", which is non-rational and seemingly trivial, and which, just because of its seeming triviality, has hitherto been overlooked by all philosophers — the quality in virtue of which impressions have the power, the *causal* efficacy, of enlivening any ideas that are co-present with them, an enlivening which issues in belief. What has been anticipated — in connexion with some present impression — is then likewise believed, i.e. assented to, as itself, no less than the impression, an actual existent.

Lastly, custom, over and above its effect in bringing about the transition, the so-called inference, from the impression to its conjoined and thus enlivened idea, exercises, Hume contends, *quâ* custom, a further effect, this time upon the mind itself, namely, in generating an impression of reflexion, a feeling of being necessitated to the transition. It is in this feeling that Hume finally locates the impression which he has been seeking, the impression of necessitation or causation

— necessitation and causation being for him, in this context, synonymous with one another.<sup>1</sup>

To repeat, what Hume is here endeavouring to justify is not a uniformity view of causation, but a view in which causal agency — power, efficacy, determination — is presupposed throughout. *It is the factor of inference, not that of agency, which is being denied.*

Every enlargement, therefore, (such as the idea of power or connexion) which arises from the multiplicity of similar instances, is copy'd from some effects of the multiplicity, and will be perfectly understood by understanding these effects. Wherever [as in the case of this connexion in the mind] we find anything new to be discover'd or produc'd by the repetition, there [i.e. in the mind] we must place the power, and must never look for it [in the way of knowledge] in any other object.<sup>2</sup>

### *Recapitulation of the Steps in Hume's Argument*

This is the thesis for which Hume proceeds to argue in the most explicit manner. Recognising this thesis to be central to his whole teaching, he traverses and re-traverses the ground, scrutinising his argument anew from every possible angle. The steps in the argument, as he re-enumerates them, are the following:

(1) Independently of all experience, we have no ground even for conjecturing what other event, or kind of event, may be expected to follow upon any given event.

There is nothing in any object, consider'd in itself, which can afford us a reason for drawing a conclusion beyond it.<sup>3</sup>

Indeed so far as reason alone is concerned

Any thing may produce any thing. Creation, annihilation, motion, reason, volition; all of these may arise from one another, or from any other object we can imagine.<sup>4</sup>

(2) Even after we have experienced both cause and effect, the nature of the connexion between them remains wholly

<sup>1</sup> Hume recognises a second type of necessity, viz. that of 'analytic' reason, necessity of thought. Necessity in the sense of causation is therefore strictly a subspecies of necessity, the two species being distinguished as logical necessity and necessity as exhibited in natural happenings. The one is 'intelligible', the other is an object of belief.

<sup>2</sup> *Treatise*, I, iii, 14 (163).

<sup>3</sup> *Treatise*, I, iii, 12 (139).

<sup>4</sup> *Treatise*, I, iii, 15 (173).

mysterious; it is only their time-relations of priority and succession (and also, when space is involved, the space-relation of contiguity) which lie open to observation; and as we have seen, time and space relations can never by themselves be a ground of inference.

(3) Even after we have had experience of constancy of conjunction, there is still no ground for rationally inferring that the conjunction is a causal one, i.e. that it is necessary and therefore invariable. Clearly, if necessary connexion is not revealed in any one instance, neither is it revealed in any number of similar instances. It is precisely the similarity of the instances which constitutes the uniformity, and which therefore rules out the possibility of more being revealed by additional instances than is revealed in the single instance. Consequently, as not revealing to us anything new in any of the instances, the repetition or uniformity cannot be made the basis of any *inference* to the future, either demonstrative or probable. What we are looking for is such enlargement of experience as will supply what neither the single instance nor the mere repetition of similar instances can yield.

(4) Even if some inference could be drawn — such as that the uniformity of repetition in the past justifies inference to its continuing in the future — this would not help us. No inference can give rise to a new idea, such as this of necessity, power or agency.

... Wherever we reason, we must antecedently be possest of clear ideas, which may be the objects of our reasoning. The conception always precedes the understanding; and where the one is obscure, the other is uncertain; where the one fails, the other must fail also.<sup>1</sup>

(5) The repetition of similar objects in similar situations produces nothing new *either in these objects or in any external body*. Each instance is independent of every other, and therefore has no effect on any other.

The communication of motion, which I see result at present from the shock of two billiard-balls, is totally distinct from that which I saw result from such an impulse a twelve-month ago. These impulses have no influence on each other. They are entirely

<sup>1</sup> *Treatise*, I, iii, 14 (164).

divided by time and place; and the one might have existed and communicated motion, tho' the other never had been in being.<sup>1</sup>

(6) The several resembling instances do, however, *produce* a new impression *in the mind*; through their effect *on the observer* they produce the new impression of being determined, i.e. necessitated,

to pass from one object to its usual attendant, and to conceive it in a stronger light upon account of that relation.<sup>2</sup>

It is in this way that the several instances of repeated conjunction "lead us into the notion of power and necessity".<sup>3</sup>

(7) The idea of necessity is thus conveyed to us not by sensation, but solely by an internal impression of reflexion. It is "internally felt by the soul, and not perceiv'd externally in bodies",<sup>4</sup> and by way of custom-bred expectation, reinforced by the enlivening power possessed by impressions, it conditions belief.

Without considering it in this view, we can never arrive at the most distant notion of it, or be able to attribute it [by way of belief] either to external or internal objects, to spirit or body, to causes or effects.<sup>5</sup>

... it is not possible for us to form the most distant idea of [necessity and power], when it is not taken for the determination of the mind, to pass from the idea of an object to that of its usual attendant.<sup>6</sup>

(8) This feeling is not, however, experienced by us in complete isolation, as merely a feeling, merely itself. As in the case of other impressions Nature, in the constitution which it has given to the animal and the human mind, has secured that the feeling functions in a determinate fashion — in this particular case that it operates in conditioning a specific, *objectively* directed mode of belief, viz. the belief that *bodies* (or other existents) are causally operative one upon another.

'Tis a common observation, that the mind has a great propensity to spread itself on external objects, and to conjoin with them any internal impressions, which ... always make their appearance at the same time that these objects discover them-

<sup>1</sup> *Loc. cit.*

<sup>2</sup> *Loc. cit.* (165).

<sup>3</sup> *Loc. cit.*

<sup>4</sup> *Loc. cit.* (166).

<sup>5</sup> *Loc. cit.* (165).

<sup>6</sup> *Loc. cit.* (167). Hume's stronger statement, in one passage (165-6), that it exists in the mind, *not* in objects, is considered below, p. 396.



selves to the senses. . . . The same propensity is the reason, why we suppose necessity and power to lie in the objects we consider, not in our mind, that considers them. . . .<sup>1</sup>

### *Misleading Features in Hume's Methods of Exposition*

As already noted,<sup>2</sup> the manner in which Hume has chosen to distribute his discussions between Part iii and Part iv of Book I is a main reason why this last step in his argument is so cursorily dealt with, and why in this and other regards his teaching has been so generally misunderstood. All judgments of *belief* — the only type of judgment in which causality can be affirmed — are in his view based, like all judgments of value, exclusively on feeling. Just as all ethical and aesthetic judgments express some sentiment in the mind, not any relation apprehended as holding between existents or even between ideas, so all judgments of belief express an attitude which does not permit of being equated with any species of knowing or understanding. Now in Part iii, despite the fact that it is so largely occupied with an exposition of the naturalistic theory of causal 'inference', as a custom-bred type of belief, what Hume has mainly in view is the bearing of this doctrine on the problems of *knowledge*.<sup>3</sup> Accordingly it is upon the *negative* aspect of his naturalistic teaching that he dwells. Necessity is *for us* only a *feeling*; it requires for its possibility the context of the mind. It "belongs entirely to the soul". Indeed he goes even further than this, using language in which "the efficacy and energy" of causes, their "necessity and power", is declared to be not in the objects we consider, but in our mind that considers them.

Thus as the necessity, which makes two times two equal to four, or three angles of a triangle equal to two right ones, lies only in the act of the understanding, by which we consider and compare these ideas; in like manner the necessity or power, which unites causes and effects, lies in the determination of the mind to pass from the one to the other.<sup>4</sup>

This passage stands very much by itself: there is no exactly parallel statement anywhere else in the *Treatise*. Hume may

<sup>1</sup> *Treatise*, I, iii, 14 (167). The complete passage is given above (p. 120).

<sup>2</sup> Above, pp. 113-16. <sup>3</sup> Cf. its title, "Of knowledge and probability".

<sup>4</sup> *Loc. cit.* (166). Cf. above, p. 384, n. 3.

at times approximate to it, but always with qualifications which indicate that what he intends to assert is not that there is no such thing as necessity or agency outside mind, but that the only *meaning* which we can attach to the terms 'necessity', 'efficacy', 'agency', 'power', 'energy', is one which derives from what is no more than a feeling, i.e. from what is possible of existence only in some mind, and that we cannot therefore, by means of it, hope to have any kind of *understanding or comprehension* of what, through the processes of belief, we none the less come to locate in external happenings. The feeling, as an impression which yields the idea of necessity — and with necessity the ideas which he has declared to be "all nearly synonymous" with it, efficacy, power, force, energy, connexion, productive quality<sup>1</sup> — suffices, that is to say, for belief; but we must not on this account treat it as being also an instrument of knowledge. In the way of knowledge, we have not, he holds, even the most distant notion of what necessity signifies; and this holds as rigorously of its operations as *experienced* within the mind as of those which we *believe* to occur in the external world. When allowance has been made for excesses of statement — due, in part at least, to analogies drawn from his ethics — this, it would seem, is all that he had really intended in the passages above quoted. He has shown himself sensible of their paradoxical character, and himself proceeds to remark upon it.

. . . I doubt not but my sentiments will be treated by many as extravagant and ridiculous. What! the efficacy of causes lie in the determination of the mind! As if causes did not operate entirely independent of the mind, and wou'd not continue their operation, even tho' there was no mind existent to contemplate them, or reason concerning them. Thought may well depend on causes for its operation, but not causes on thought. This is to reverse the order of nature, and make that secondary, which is really primary. To every operation there is a power proportion'd; and this power must be plac'd on the body, that operates. If we remove the power from one cause, we must ascribe it to another: But to remove it from all causes, and bestow it on a being, that is no ways related to the cause or effect, but by perceiving them, is a gross absurdity, and contrary to the most certain principles of human reason.<sup>2</sup>

<sup>1</sup> *Loc. cit.* (157).

<sup>2</sup> *Loc. cit.* (167-8). In the concluding sentence Hume, it may be noted, recognises that the cognitive relation is not a causal one.

What now is Hume's reply to these, his own forceful counter-statements? Does he merely repeat the previous extreme assertions, without qualification and with additional arguments in their support? Not so. What he now does is to make plain what it is he is really insisting on, the distinction, namely, between knowledge and what falls short of knowledge, as being no more than belief.

I can only reply to all these arguments, that the case is here much the same, as if a blind man shou'd pretend to find a great many absurdities in the supposition, that the colour of scarlet is not the same with the sound of a trumpet, nor light the same with solidity. If we have really no idea of a power or efficacy in any object, or of any real connexion betwixt causes and effects, 'twill be to little purpose to prove, that an efficacy is necessary in all operations. We do not understand our own meaning in talking so, but ignorantly confound ideas, which are entirely distinct from each other. I am, indeed, ready to allow, that there may be several qualities both in material and immaterial objects, with which we are utterly unacquainted; and if we please to call these *power* or *efficacy*, 'twill be of little consequence to the world. But when, instead of meaning these unknown qualities, we make the terms of power and efficacy signify something, of which we have a clear idea, and which is incompatible with those objects, to which we apply it, obscurity and error begin then to take place, and we are led astray by a false philosophy. This is the case, when we transfer the determination of the thought to external objects, and suppose any real intelligible connexion betwixt them; <sup>1</sup> that being a quality, which can only belong to the mind that considers them.<sup>2</sup>

### *Hume's Thesis twofold*

Hume's thesis is thus twofold: (1) that causal connexion, as a mode of *necessitated* connexion, is *felt* by the mind, and that this *feeling* is the impression which makes possible to the mind the idea of such causal connexion; and (2) that while we are thus in possession of the idea, it is not the kind of idea which can render real connexion in any instance whatsoever

<sup>1</sup> This phrase "any real intelligible connexion betwixt them" (i.e. betwixt the external objects) is apt to mislead the reader, there being no unmistakable indication that the emphasis is on 'intelligible', not on 'real' or on 'connexion'. As Hume has stated in the immediately preceding sentences, he is not committed to a denial of the possibility or even actuality of real connexion, but only to the contention that as such it is beyond our powers of comprehension.

<sup>2</sup> *Treatise*, I, iii, 14 (168).

*intelligible* to us. The judgments into which it enters are judgments of *belief* solely, not in any degree judgments of knowledge.

In proof of this Hume proceeds, "by a subtilty", which, he says, will not be difficult to comprehend, "to convert [his] present reasoning into an instance of it".<sup>1</sup> The doctrine of belief which he has been expressing is that an object frequently experienced by us immediately conveys the mind to the idea of some other object which has usually accompanied it in the past, and that in so doing, it enlivens that idea, and that the feeling of this determination to the enlivened idea is what forms the necessary connexion *between the impression and the idea*. The impression is naively apprehended as an independently existing object; the idea as enlivened is similarly apprehended, i.e. is apprehended as carrying the mind to the independently real. In other words, the *attitude* of the mind, its *manner* of envisaging the two objects and their mode of connexion, is that of belief. If now, Hume proceeds, we choose to change the point of view; if, that is to say, we cease to keep to the standpoint of instinctive belief, and instead adopt that of the outside observer, and in doing so raise questions which concern knowledge, and not merely belief, we find that causal agency, necessary connexion, as thus exhibited *to the mind*, and assented to in *belief*, is itself as mysterious, as little intelligible to us, as that between any two external objects. For if we thus adopt the attitude proper to knowledge, i.e. the attitude of the observer, the perception which enlivens the idea is then recognised as being a perception; it is an impression in the mind, and it is it alone, *quâ* impression, which is the 'cause.' The like holds of the enlivened idea; it alone, *quâ* idea, is the effect. Their causal connexion is the *new* determination of the mind which then mysteriously arises — how we cannot pretend to explain<sup>2</sup> — the determination to pass from the one to the other, and in doing so to experience the other in this enlivened form.

The uniting principle among our internal perceptions is as unintelligible as that among external objects, and is not known to us any other way than by experience.<sup>3</sup>

<sup>1</sup> *Loc. cit.* (169).

<sup>2</sup> *Treatise*, I, i, 4 (13).

<sup>3</sup> *Treatise*, I, iii, 14 (169).

What alone differentiates this particular instance of causal connexion is that in operating it operates in and through feeling, and that, thanks to the 'quality of human nature' in virtue of which impressions enliven ideas, it likewise operates in and through natural belief.

In other words — to paraphrase Hume somewhat freely — experience, as it occurs in the mind, has a nature, and has effects, which differ from, and are supplementary to, those which come under consideration in questions of knowledge. In knowledge we are concerned only with the *content* of experience. But experience likewise acts in and through feeling, i.e. in and through what Hume entitles the *manner* in which contents, otherwise alike, are differentially operative. Experience never gives us any insight into the operations of objects, but it none the less definitely determines the manner in which we shall regard them. *Belief takes charge at the point where knowledge ceases; it is not in any degree an extension of knowledge; it is a substitute for it, with virtues and limitations appropriate to the functions which, in the economy of our human nature, it is required to fulfil.*

*Causation therefore definable only in Terms foreign to it*

These are the reasons which constrain Hume to recognise that causation can be defined only in terms *foreign*<sup>1</sup> to it. When we approach it as a philosophical relation we can define it only in terms of mere uniformity. When we treat it as a natural relation, we can define it only as a determination of the mind, not of the objects concerned. The passage may here be quoted *in extenso*.

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

<sup>1</sup> *Treatise*, I, iii, 14 (169-70). Elsewhere Hume uses the less strong, more legitimate term, 'extrinsic'.

we were able exactly to define them, or fix their meaning. We shall now correct this fault by giving a precise definition of cause and effect.

There may two definitions be given of this relation, which are only different, by their presenting a different view of the same object, and making us consider it either as a *philosophical* or as a *natural* relation; either as a comparison of two ideas, or as an association betwixt them. We may define a CAUSE to be 'An object precedent and contiguous to another, and where all the objects resembling the former are plac'd in like relations of precedency and contiguity to those objects, that resemble the latter'. *If this definition be esteem'd defective, because drawn from objects foreign to the cause*, we may substitute this other definition in its place, viz. 'A CAUSE is an object precedent and contiguous to another, and so united with it, that the idea of the one determines the mind to form the idea of the other, and the impression of the one to form a more lively idea of the other.' *Shou'd this definition also be rejected for the same reason, I know no other remedy*, than that the persons, who express this delicacy, should substitute a juster definition in its place. But for my part *I must own my incapacity for such an undertaking*.<sup>1</sup>

It will be observed that in defining causation as a natural relation Hume uses the term 'determination', and this in a dual capacity, as the determination of the mind to the forming of an idea and to the enlivening of that idea. Now, clearly 'determination' is here more or less synonymous with causation. His use of it in his definition of causation was, however, unavoidable. What he has set himself to give is a *causal* explanation of our belief in causation as holding *between objects*, by pointing to their connexion, *their causal connexion, in the imagination*. As has already been pointed out, the actual occurrence of causation, as a mode of union or connexion, is presupposed throughout.<sup>2</sup> This, therefore, is one of the reasons why his definition of causation, as a natural relation, does not amount to a definition of it in the strict logical sense. It is in the main ostensive.

It may be objected that Hume does not mention 'determination' in the list which he gives of terms "nearly synonymous" with causation. But his reason for this omission

<sup>1</sup> *Loc. cit.* Only 'philosophical' and 'natural' italicised in text.

<sup>2</sup> Cf. *Treatise*, I, iii, 6 (92): "Had ideas no more union in the fancy than objects seem to have to the understanding, we cou'd never draw any inference from causes to effects, nor repose belief in any matter of fact. The inference, therefore depends solely on the union of ideas." Cf. also above, pp. 88 ff., 369 ff.

seems fairly obvious. He is there engaged in pointing out that we ought not to search for the idea of causation in a definition of it. We cannot, that is to say, hope to discover it in and through the use of terms which imply that we are already in possession of it.

I begin with observing that the terms of *efficacy*, *agency*, *power*, *force*, *energy*, *necessity*, *connexion*, and *productive quality*, are all nearly synonymous; and therefore 'tis an absurdity to employ any of them in defining the rest. By this observation we reject at once all the vulgar definitions, which philosophers have given of power and efficacy; and instead of searching for the idea in these definitions, must look for it in the impressions, from which it is originally deriv'd.<sup>1</sup>

In composing this passage Hume cannot have been unaware that his definition of causation as a natural relation would require a reference to causal efficacy in a mental form, i.e. as a *determining* of the mind, and this in the dual form as associative connexion and as a process of enlivening. But since in so doing he was not professing to disclose the idea of causation by way of the definition, but only to be resorting to causation in these two modes for the purpose of giving a causal account of the origin of our idea of it, and of the use to which we then put it, there is no real inconsistency in his method of procedure. To have included 'determination' in the list of synonyms would only have obscured that fact. Also, while 'determination of the mind' is, indeed, a mode of causation, it is a specific mode — being a title appropriate to causation in these mental modes of operation — and there was no obligation to include it in the list of the more *general* synonyms.

#### *A main Issue not yet dealt with*

As already stated, what renders Hume's argument more puzzling to his readers than it need have been is his having deferred the further treatment of belief to Part iv of Book I. There, for the first time, he takes account, in any adequate degree, of the fact that belief is already operative in sense-perception, and that, as thus operative, it is not to be properly understood so long as the analogy with sympathy — the

<sup>1</sup> *Treatise*, I, iii, 14 (157).

analogy in terms of which belief is no more than an *enlivening* of what is, and remains, a mere idea — is strictly kept to. For what has not yet been accounted for is the procedure of the mind in adopting towards its ideas (*quâ* ideas and without any confounding of them with actual impressions) an attitude which admittedly is native to all sense-perceptions, viz. the attitude in which the mind is carried in belief to the *actually existent*. It is, as we have noted,<sup>1</sup> more than questionable whether the enlivening of *free* ideas, for which Hume has argued, can be allowed as occurring. But even if allowed, the 'belief', the 'opinion' (Hume uses both expressions) that this and that ideally entertained object or event is, has been, or is about to become, *existent*,<sup>2</sup> is clearly more than any mere idea, however enlivened. These are points which will come up for consideration in later chapters.

<sup>1</sup> Cf. above, pp. 377-8.

<sup>2</sup> Cf. *Treatise*, App. (629): the 'judgment', the 'act of the mind, which renders realities more present to us than fictions'.

## CHAPTER XVIII

"I never asserted so absurd a Proposition as *that any thing might arise without a Cause*."—HUME, in letter to John Stewart (1754).

## CHAPTER XVIII

### THE CAUSAL MAXIM NEITHER SELF-EVIDENT NOR DEMONSTRABLE: ITS SANCTIONS SOLELY THOSE OF NATURAL BELIEF

#### *The Maxim not self-evident, and not demonstrable*

HUME'S criticism of the claims made for the causal maxim as having intuitive certainty, and as therefore expressing an 'absolute and metaphysical' necessity,<sup>1</sup> is, as he expounds it, simply a corollary from his view of knowledge (in his narrow sense of the term) as based exclusively on the relations of resemblance, proportions in quantity and number, degrees of any quality, and contrariety. The relation asserted in the maxim is not any one of these four types of relation, and cannot therefore claim to have the unalterable, infallible character which they alone can be shown to possess. The relation asserted is not between ideas but between existents; and for this reason alone, if for no other, it ought not to be expected to be self-evident in character. Like all other propositions concerning matters of fact, it has an entertainable opposite, and however little we may incline to accept this opposite as credible, it is not to be ruled out as being in itself inconceivable.

That the principle is also not demonstrable from truths more ultimate than itself Hume shows by an examination of the various arguments that have been put forward in proof of it — arguments the very propounding of which is a virtual admission that the principle is not indeed self-evident. Each of these arguments can proceed only by assuming the truth of the principle which it professes to be independently establishing, and considered as demonstration is therefore 'fallacious and sophistical'. The arguments are three in number.<sup>2</sup>

<sup>1</sup> *Treatise*, I, iii, 3 (78). Cf. I, iii, 14 (172).

<sup>2</sup> Not counting the 'more frivolous' argument on which Hume also comments, *loc. cit.* (82).

(1) 'All the points of time and place are in themselves equal; and a cause is therefore required to determine an object to exist at some one time and at one place, rather than at any other. Otherwise the object must remain in eternal suspense, and can never be actualised.' But the objection is obvious: there is no more difficulty in supposing the time and place to be fixed without a cause, than to suppose the existence to be determined without a cause.

If the removal of a cause be intuitively absurd in the one case, it must be so in the other: And if that absurdity be not clear without a proof in the one case, it will equally require one in the other. The absurdity, then, of the one supposition can never be a proof of that of the other; since they are both upon the same footing, and must stand or fall by the same reasoning.<sup>1</sup>

(2) 'Everything must have a cause; for if there were no cause, it would have to produce *itself*, i.e. exist before it existed, which is impossible.' Again the very point under question is being taken for granted. It is being supposed that we still grant what we are expressly denying, viz. that there must be a cause. If no cause be needed, then neither is the thing itself needed as its own cause.

(3) 'Whatever is produced without any cause is produced by *nothing*; or in other words, has *nothing* as a cause. But "nothing"—the argument proceeds—can never be a cause, any more than it can be something, or equivalent to two right angles. Consequently, every object must have a real, positive cause of its existence.' The same reply is here again in order. When we exclude *all* causes we really do exclude them; we neither suppose nothing nor the object itself to be the cause of the existence; and therefore can derive no argument from the absurdity of this supposition to prove the absurdity of the exclusion. Were we to suppose that everything has a cause, it would indeed follow that upon the exclusion of other causes we should have to accept the object itself or nothing as its cause. But the very point at issue being whether everything must have a cause or not, i.e. whether or not everything must be viewed as an effect, that is precisely what may not be taken for granted.

<sup>1</sup> *Treatise*, I, iii, 3 (80).

*Hume is not here questioning the Truth of the Maxim*

When Hume returns to this question of the character and grounds of the causal maxim, at the close of his discussion of causal inference, he treats it only in a single paragraph,<sup>1</sup> and only in order to reiterate that it has neither intuitive nor demonstrative certainty, and that any necessity it may have is of the sheerly *de facto* type certified by experience. But neither there nor elsewhere in the *Treatise* does he raise the question of the *truth* of the maxim. His discussions concern only the grounds, or causes, upon which our *belief* in it, our *opinion* or *judgment* regarding it, really rests. These, he consistently maintains, are sheerly natural, and allow of no kind of absolute or metaphysical justification.<sup>2</sup>

Hume's commentators have, as a rule, assumed that Hume questions the validity of the axiom. No statement of Hume's own can, however, be cited in support of any such view; and on the other hand, the positions to which he quite definitely holds obviously rest on acceptance of the axiom. There are, for instance, his statements in denial of there being any such thing as 'chance', if by chance be meant the uncaused. He agrees with what he takes to be the view commonly held by philosophers, that "what the vulgar call chance is nothing but a secret and conceal'd cause".<sup>3</sup> The vulgar are not, indeed, as Hume points out, sufficiently sophisticated to be under any temptation to regard events as uncaused. What they mean by 'chance' is mainly the incalculable; and this incalculable element in things they explain by the *variability* of causes. Personifying all agencies, they ascribe to causes the uncertainty and inconstancy which they seem to themselves to experience in their own modes of behaviour.

The vulgar, who take things according to their first appearance, attribute the uncertainty of events to such an uncertainty in the causes, as makes them often fail of their usual influence, tho' they meet with no obstacle nor impediment in their operation. But philosophers observing, that almost in every part of nature there is contain'd a vast variety of springs and principles, which are hid, by reason of their minuteness or remoteness, find that 'tis at

<sup>1</sup> *Treatise*, I, iii, 14 (172).

<sup>2</sup> *Loc. cit.*

<sup>3</sup> *Treatise*, I, iii, 12 (130).

least possible the contrariety of events may not proceed from any contingency in the cause, but from the secret operation of contrary causes. This possibility is converted into certainty by farther observation, when they remark, that upon an exact scrutiny, a contrariety of effects always betrays a contrariety of causes, and proceeds from their mutual hindrance and opposition. A peasant can give no better reason for the stopping of any clock or watch than to say, that commonly it does not go right: But an artizan easily perceives, that the same force in the spring or pendulum has always the same influence on the wheels; but fails of its usual effect, perhaps by reason of a grain of dust, which puts a stop to the whole movement. From the observation of several parallel instances, philosophers form a maxim, that the connexion betwixt all causes and effects is [invariably and in all cases] equally necessary, and that its seeming uncertainty in some instances proceeds from the secret opposition of contrary causes.<sup>1</sup>

Still more explicit are Hume's statements in the section *Of liberty and necessity* in Part iii, Book II:

I dare be positive no one will ever endeavour to refute these reasonings otherwise than by altering my definitions, and assigning a different meaning to the terms of *cause, and effect, and necessity, and liberty, and chance*. According to my definitions, necessity makes an essential part of causation; and consequently liberty, by removing necessity, removes also causes, and is the very same thing with chance. As chance is commonly thought to imply a contradiction, and is at least directly contrary to experience, there are always the same arguments against liberty or free-will. If any one alters the definitions, I cannot pretend to argue with him, 'till I know the meaning he assigns to these terms.<sup>2</sup>

As a matter of fact we have Hume's own quite explicit denial — occurring in a private letter,<sup>3</sup> it has been very generally overlooked — that he has ever, at any time, entertained the intention of questioning the truth of the maxim. The letter, composed in 1754, is addressed to John Stewart, Professor of Natural Philosophy in the University of Edinburgh, who had accused Hume of asserting that something may begin to start into being without a cause. To this Hume replies:

... I never asserted so absurd a Proposition as *that any thing might arise without a Cause*: I only maintain'd, that our Certainty of the Falshood of that Proposition proceeded neither

<sup>1</sup> *Treatise*, I, iii, 12 (132).

<sup>2</sup> *Treatise*, I, iii, 1 (407).

<sup>3</sup> The letter, which is of considerable general interest, and the criticism to which it is a reply, are given in full in an Appendix; below, pp. 411-13.

from Intuition nor Demonstration; but from another Source. *That Caesar existed, that there is such an Island as Sicily*; for these Propositions, I affirm, we have no demonstrative nor intuitive Proof. Would you infer that I deny their Truth, or even their Certainty? There are many different kinds of Certainty; and some of them as satisfactory to the Mind, tho perhaps not so regular, as the demonstrative kind.

Where a man of Sense mistakes my Meaning, I own I am angry: But it is only at myself: For having exprest my Meaning so ill as to have given Occasion to the Mistake.

*The Maxim gives Expression to a 'natural' Belief*

Hume's attitude to this question, whether every event is or is not caused, is thus precisely the attitude which he has adopted to the question "whether there be body or not". To both questions he gives an affirmative answer; and in both cases this affirmative answer is made to rest on 'natural belief'. The opening paragraph of Section 2 of Part iv, Book I, in which he is treating *Of scepticism with regard to the senses*, if it be adjusted to this issue, will read as follows:

Thus the sceptic still continues to reason and believe, even tho' he asserts, that he cannot defend his reason by reason; and by the same rule he must assent to the principle concerning the [necessity of a cause to every new production], tho' he cannot pretend by any arguments of philosophy to maintain its veracity. Nature has not left this to his choice, and has doubtless esteem'd it an affair of too great importance to be trusted to our uncertain reasonings and speculations. We may well ask, What causes induce [in] us, [the belief in the necessity of events always being caused]? but 'tis in vain to ask, Whether [events have causes] or not? That is a point, which we must take for granted in all our reasonings.<sup>1</sup>

The two natural beliefs have also this in common, that being, beyond possible question, beliefs which determine the mind both in thought and in action, they are to be regarded as more certain than any theories that can be propounded in explanation of the manner in which, and the causes in virtue of which, they thus take possession of the mind. The explanations propounded, viz. that the beliefs rest on, and operate through, complex associative mechanisms, are, as Hume has himself emphasised,<sup>2</sup> more hypothetical than the beliefs themselves.

<sup>1</sup> *Treatise*, I, iv, 2 (187). Italics in text omitted.

<sup>2</sup> *Loc. cit.* (206-7).

We may again note, in passing, what has proved so great a stumbling-block in the path of Hume's readers. Natural belief, he holds, takes *two* forms, which serve to balance and check one another — belief in continuing *independent* existents, and belief that these independent existents are *causally* interrelated. The belief in causation is treated more or less exclusively in Part iii and the belief in independent existents hardly less exclusively in Part iv. Owing to this separation of the two discussions, Hume has nowhere dealt in any detail with the manner in which — as his teaching requires — the belief in continuing independent existents enters into and conditions the belief, no less natural to the mind, in their causal interaction. The methods of argument, and the terminology employed, in Part iii, have meantime led the reader to conceive Hume's doctrine of causation almost entirely in the light of the associative mechanism upon which the belief in causation has been declared to rest, and of the sheerly *mental* character of the feeling in which it has been declared to result. Its distinctive character, *quâ* belief, as being *outwardly* directed (a feature no more than merely mentioned in Part iii<sup>1</sup>), is consequently overlooked.

<sup>1</sup> *Treatise*, I, iii, 14 (167). Cf. above, pp. 93, 395-6.

### Appendix to Chapter XVIII

#### HUME'S EXPLICIT DENIAL THAT HE HAD EVER THOUGHT OF ASSERTING THAT EVENTS ARE UNCAUSED

IN 1754 the Philosophical Society of Edinburgh (now the Royal Society of Edinburgh) issued a volume (the first of a series of three) entitled *Essays and Observations, Physical and Literary, read before a Society in Edinburgh and published by them*. The preface to the volume closes with the statement: "Whoever will favour the Society with any discourse which it comprehends in its plan, may send their papers to either of the secretaries, Mr. Alexander Monro, Professor of Anatomy at Edinburgh, or Mr. David Hume, Library Keeper to the Faculty of Advocates". The preface bears the unmistakable marks of having come from Hume's own pen. The second article, which has the title *Some Remarks on the Laws of Motion, and the Inertia of Matter*, is by John Stewart, M.D., Professor of Natural Philosophy, Edinburgh; and contains the following passage and accompanying footnote:

That something may begin to exist, or start into being without a cause, hath indeed been advanced in a very ingenious and profound system of the sceptical philosophy; \* but hath not yet been adopted by any of the societies for the improvement of natural knowledge. Such sublime conceptions are far above the reach of the greatest physiologist on earth. The man who believes that a perception may exist without a percipient mind or a perceiver, may well comprehend, that an action may be performed without any agent, or a thing produced without any cause of the production. And the author of this new and wonderful doctrine informs the world, that, when he looked into his own mind, he could discover nothing but a series of fleeting perceptions; and that from

\* *Treatise on Human Nature*, 3 vols. octavo. This is the system at large, a work suited only to the comprehension of Adepts. An excellent compend or summary whereof, for the benefit of vulgar capacities, we of this nation enjoy in the *Philosophical Essays* and the *Essays Moral & Political*. And to these may be added, as a further help, that useful commentary [by Lord Kames], the *Essays on Morality and natural Religion*.



thence he concluded, that he himself was nothing but a bundle of such perceptions.

The following letter, dated by Greig as written in February 1754 (cf. *Letters*, i, p. 185), is believed by both Burton and Greig to have been addressed to Stewart: its content seems conclusive in this regard.

*Tuesday Forenoon [Feb. 1754]*

SIR—

I am so great a Lover of Peace, that I am resolv'd to drop this Matter altogether, & not to insert a Syllable in the Preface, which can have a Reference to your Essay. The Truth is, I cou'd take no Revenge, but such a one as wou'd have been a great deal too cruel, & much exceeding the Offence. For tho' most Authors think, that a contemptuous manner of treating their Writings, is but slightly reveng'd by hurting the personal Character & the Honour of their Antagonists, I am very far from that Opinion. Besides, I am as certain as I can be of any thing (and I am not such a Sceptic, as you may, perhaps, imagine) that your inserting such remarkable Alterations in the printed Copy proceeded entirely from Precipitancy & Passion, not from any form'd Intention of deceiving the Society. I wou'd not take Advantage of such an Incident to throw a Slur on a man of Merit, whom I esteem, tho' I might have reason to complain of him.

When I am abus'd by such a Fellow as Warburton, whom I neither know nor care for, I can laugh at him: But if Dr Stewart approaches any way towards the same Style of writing, I own it vexes me: Because I conclude, that some unguarded Circumstance of my Conduct, tho' contrary to my Intention, had given Occasion to it.

As to your Situation with regard to Lord Kames, I am not so good a Judge. I only think, that you had so much the better of the Argument, that you ought, upon that Account, to have been the more reserv'd in your Expressions. All Raillery ought to be avoided in philosophical Argument; both because it is unphilosophical, and because it cannot but be offensive, let it be ever so gentle. What then must we think with regard to so many Insinuations of Irreligion, to which Lord Kame's Paper gave not the least Occasion? This Spirit of the Inquisitor is in you the Effect of Passion, & what a cool Moment wou'd easily correct. But where it predominates in the Character, what Ravages has it committed on Reason, Virtue, Truth, Liberty, & every thing, that is valuable among Mankind?

I shall now speak a Word as to the Justness of your Censure with regard to myself, after these Remarks on the manner of it. I have no Scruple of confessing my Mistakes. You see I have own'd, that I think Lord Kames is mistaken in his Argument; and I wou'd sooner give up my own Cause than my Friend's, if I thought that Imputation of any Consequence to a man's Character.

But allow me to tell you, that I never asserted so absurd a Proposition as *that any thing might arise without a Cause*: I only maintain'd, that our Certainty of the Falshood of that Proposition proceeded neither from Intuition nor Demonstration; but from another Source. *That Caesar existed, that there is such an Island as Sicily*; for these Propositions, I affirm, we have no demonstrative nor intuitive Proof. Woud you infer that I deny their Truth, or even their Certainty? There are many different kinds of Certainty; and some of them as satisfactory to the Mind, tho perhaps not so regular, as the demonstrative kind.

Where a man of Sense mistakes my Meaning, I own I am angry: But it is only at myself: For having exprest my Meaning so ill as to have given Occasion to the Mistake.

That you may see I wou'd no way scruple of owning my Mistakes in Argument, I shall acknowledge (what is infinitely more material) a very great Mistake in Conduct, viz. my publishing at all the Treatise of human Nature, a Book, which pretended to innovate in all the sublimest Parts of Philosophy, & which I compos'd before I was five & twenty. Above all, the positive Air, which prevails in that Book, & which may be imputed to the Ardor of Youth, so much displeases me, that I have not Patience to review it. But what Success the same Doctrines, better illustrated & exprest, may meet with, *Adhuc sub judice lis est*. The Arguments have been laid before the World, and by some philosophical Minds have been attended to. I am willing to be instructed by the Public; tho' human Life is so short that I despair of ever seeing the Decision. I wish I had always confin'd myself to the more easy Parts of Erudition; but you will excuse me from submitting to a proverbial Decision, let it even be in Greek.

As I am resolv'd to drop this Matter entirely from the Preface; so I hope to perswade Lord Kames to be entirely silent with regard to it in our Meeting. But in Case I should not prevail, or if any body else start the Subject, I think it better, that some of your Friends shou'd be there, & be prepared to mollify the Matter. If I durst pretend to advise, I shou'd think it better you yourself were absent, unless you bring a greater Spirit of Composition than you express in your letter. I am perswaded, that whatever a Person of Mr. Monro's Authority proposes will be agreed to: Tho' I must beg leave to differ from his Judgement, in proposing to alter two Pages. That chiefly removes the Offence given to me, but what regards Lord Kames is so interwoven with the whole Discourse, that there is not now any Possibility of altering it.— I am Sir, Your most obedient humble Servant,

DAVID HUME

P.S.— I hope you are very zealous in promoting the Sale of Blacklock's Poems. I will never be reconcild to you, unless you dispose of a Score of them, make your Friends, Sir John Maxwell and Lord Buchan pay a Guinea a piece for their Copy.

## CHAPTER XIX

"What the vulgar call chance is nothing but a secret and conceal'd cause."  
—HUME, *Treatise*.

"Among the phenomena, of the causes of which we are ignorant, there are some, such as those dealt with by the manager of a life insurance company, about which the calculus of probabilities can give real information. Surely it cannot be thanks to our ignorance . . . that we are able to arrive at valuable conclusions. If it were, it would be necessary to answer an inquirer thus: 'You ask me to predict the phenomena that will be produced. If I had the misfortune to know the laws of these phenomena, I could not succeed except by inextricable calculations, and I should have to give up the attempt to answer you; but since I am fortunate enough to be ignorant of them, I will give you an answer at once. And, what is more extraordinary still, my answer will be right.' The ignorance of the manager of the life insurance company as to the prospects of life of his individual policy-holders does not prevent his being able to pay dividends to his shareholders."—J. M. KEYNES, *A Treatise on Probability*.

## CHAPTER XIX

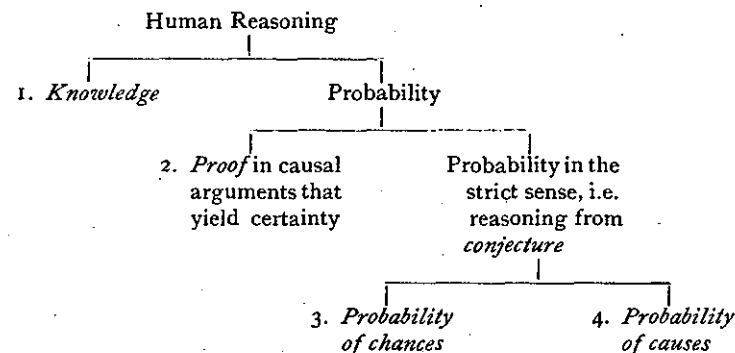
### PROBABILITY OF CHANCES AND PROBABILITY OF CAUSES

#### *The Nature of 'Chance'*

HUME supplements his twofold distinction between knowledge and belief, i.e. between knowledge in the strict sense and knowledge that is only probable, by distinguishing within the latter those probabilities which amount to, proof and those which do not.<sup>1</sup>

By knowledge, I mean the assurance arising from the comparison of ideas. By proofs, those arguments, which are deriv'd from the relation of cause and effect, and which are entirely free from doubt and uncertainty. By probability, that evidence, which is still attended with uncertainty. 'Tis this last species of reasoning, I proceed to examine.<sup>2</sup>

This third, and lowest, type of knowledge, which Hume also describes as being 'reasoning from conjecture', he again subdivides into probability of chances and probability of causes; and so obtains a fourfold division:



'Chance', when applied, as here intended, to events, is used

<sup>1</sup> Cf. above, pp. 365-6.

<sup>2</sup> *Treatise*, I, iii, 11 (124).

as signifying that for which there is no *known* cause; and when employed in the plural, as signifying alternative possibilities between which there is no *known* ground of preference. This latter sense of the term, as used in the plural, indicates, however, a second feature no less essential than 'ignorance'. If we are to be justified in postulating 'possibilities', and in treating the possibilities as alternative to one another, the nature of the chances must be defined and their range limited; and this can only come about in and through their admixture with causes. Ignorance, by itself, is not sufficient to constitute chance; that would make it merely negative, and deprive it of any objective meaning, which is as illegitimate as to ascribe to it a sheerly objective meaning.

Hume may himself at times seem to be isolating one of the two aspects of chance — the subjective and the objective — from one another.

Probability [he tells us in one passage] is of two kinds, either when the object is really in itself uncertain, and to be determin'd by chance; or when, tho' the object be already certain, yet 'tis uncertain to our judgment, which finds a number of proofs on each side of the question.<sup>1</sup>

But as J. M. Keynes, in citing this passage, points out, it is clear from Hume's further argument that he has not intended to suggest the existence of objective chance in any sense which would be contradictory of a determinist view of the natural order. When Hume speaks of the event as still uncertain and as to be determined by chance, what he has in mind is, for instance, the cast of a die. Here as in so many other cases, when it is the particular character of some one event — and not merely the *probability* of any one of a number of alternative possibilities — that we are endeavouring to anticipate, we have to wait upon the actual happening of the event; and since unknown causes are among those that operate, the outcome is for this reason, though only in the above sense, ascribable to 'chance'.

Keynes, in classifying the types of cases to which chance in this objective sense is applicable, has taken them as being three in number.<sup>2</sup> (1) When a small cause which escapes our

<sup>1</sup> *Treatise*, II, iii, 9 (444).

<sup>2</sup> *A Treatise on Probability* (1921), pp. 285-6.

notice determines a considerable and obvious effect, e.g. in the case we have been considering, the turning up of a particular side in a die. (2) When the causes are very numerous and complex — the motion of molecules of gas, the shuffling of a pack of cards. (3) When something comes about through the concurrence or intersection of two distinct causal series — as when a man walking along a street is killed by the fall of a tile. In no one of these three types of 'objective chance' is there any ground for questioning the necessitated character of the natural order. A careful examination of them confirms the view that 'subjective chance', rooted in a partial ignorance, is really the more fundamental of the two supposed 'kinds' of chance.

... An event is due to objective chance if in order to predict it, or to prefer it to alternatives, at present equi-probable, with any high degree of probability, it would be necessary to know a great many more facts of existence about it than we actually do know, and if the addition of a wide knowledge of general principles would be of little use.<sup>1</sup>

Considerations of this kind, though here formulated more explicitly and clearly than by Hume himself, are what Hume has in mind when he maintains that for the calculation of chances there is required both knowledge and ignorance — knowledge of certain of the causes that operate in the agreed type of instance and ignorance of the others which concur with them in determining the particular outcome — as is illustrated in our knowledge and ignorance of what may be the *particular* outcome of any one throw of a die.

The mind is here limited by the [known] causes to such a precise number and quality of the events; and at the same time [owing to its ignorance] is undetermin'd in its choice of any particular event.<sup>2</sup>

Hume's other main point is that in such cases all alternative chances are equal in value, and that there is therefore a total indifference of the mind as between them. It is only when the causes are such as can be seen to allow of a superior *number* of chances for one of the alternatives that any preference between them is permissible. Otherwise we should

<sup>1</sup> Keynes, *op. cit.* p. 289. Cf. also the quotation from Keynes cited as motto to this chapter.

<sup>2</sup> *Treatise*, I, iii, 11 (126).

be assuming some further *known* cause involved in certain of them and not in the others, and the conditions under which alone alternative chances can be estimated would not be fulfilled: we should really be concerned with separate and distinct sets of chances, and not throughout with one set alone. This superiority of chances, as due to superiority in *number* of chances, Hume also illustrates by reference to the die.

A dye, that has four sides mark'd with a certain number of spots, and only two with another, affords us an obvious and easy instance of this superiority.<sup>1</sup>

*The Probability of Chances: how a superior Number of Chances determines Belief*

A very characteristic part of Hume's teaching — and the least satisfactory side of it — finds expression in his treatment of the question to which he now proceeds: why a superior number of chances is in a position to determine 'belief or assent'. For it is this psychological question, not the strictly logical issues, to which Hume's main attention is directed. Since we are 'reasoning from conjecture', it is not, he argues, demonstration, i.e. not the mere comparison of ideas, which is the agency at work. Nor can it be by way of any consideration of likelihood or probability that the mind is led to give assent.

The likelihood and probability of chances is a superior number of equal chances; and consequently when we say 'tis likely the event will fall on the side, which is superior, rather than on the inferior, we do no more than affirm, that where there is a superior number of chances there is actually a superior, and when there is an inferior there is an inferior; which are identical propositions, and of no consequence. The question is, by what means a superior number of equal chances operates upon the mind, and produces belief or assent; since it appears, that 'tis neither by arguments deriv'd from demonstration, nor from probability.<sup>2</sup>

The illustration which has guided us thus far will, Hume declares, suffice to take us to our goal.

We have nothing but one single dye to contemplate, in order to comprehend one of the most curious operations of the understanding.<sup>3</sup>

<sup>1</sup> *Treatise*, I, iii, 11 (126).

<sup>2</sup> *Loc. cit.* (127).

<sup>3</sup> *Loc. cit.* (127-8).

Three circumstances exhaust the relevant nature of the die: (1) certain known causes, such as gravity, solidity, cubical figure, etc., which determine it to fall and to turn up one of its sides; (2) its six sides, upon any one of which indifferently it may fall; (3) its having four sides — to make a helpful simplification — inscribed with one number, and two sides with another number. Custom operates to determine the imagination, on picturing the shaking of a die from its box, to picture it as falling on the table and as turning one side up. But since the chances of its turning any one side up are all equal, the imagination is faced by a kind of impossibility. It can picture the die only as turning up one side at a time, and yet no one side may be favoured at the expense of the others. The impulse of the imagination, in its attempt to picture the outcome, is thus divided against itself. It has to run over all the six alternatives, but has also to allow no more force to one than to any other.

'Tis after this manner the original impulse, and consequently the vivacity of thought, arising from the causes, is divided and split in pieces by the intermingled chances.<sup>1</sup>

The impulse divides itself into as many parts as there are sides.

But thus far Hume has left out of consideration the effects of the third circumstance, that four sides concur in one inscribed number, and two sides in another number. He now proceeds to assume that the sides which have the same inscribed number unite in a single impulse to form a single image, "and become stronger and more forcible by the union".<sup>2</sup> This is a very large assumption; but Hume makes no attempt to argue in its support. Indeed it serves only to preface the way for a further assumption — and again he offers no supporting argument — that when four images combine in the one case and only two in the other, and the impulses of the former are, therefore, superior to those of the latter, "the inferior *destroys* the superior, as far as its strength goes".<sup>3</sup> The events, that is to say, are contrary; and it is, he is arguing, the nature of contraries to

<sup>1</sup> *Loc. cit.* (129).

<sup>2</sup> *Loc. cit.* (129-30).

<sup>3</sup> *Loc. cit.* Italics not in text.

*annihilate* one another.<sup>1</sup> The sixfold impulse of the imagination, in picturing the outcome of the throw of the die, is thus first divided into a fourfold impulse opposed to a twofold impulse: and what is declared as then happening is a reduction by one-half in the force and vivacity of the superior impulse, and the simultaneous vanishing out of existence altogether of its contrary, the twofold impulse.<sup>2</sup>

*The same Mechanism accounts for the Probability of Causes*

All these assumptions are carried over by Hume into his treatment of the probability of causes. By probabilities of causes, he means the probabilities which are based on empirical uniformities which are not invariable and which, in varying, supply contraries analogous to those which operate in the probability of chances.<sup>3</sup> These uniformities generate habits, and it is on the basis of these habits that Hume sets himself to account for the 'probabilities of causes'. Since habit arrives at perfection by degrees, it acquires more force with each instance—" 'tis by those slow steps, that our judgment arrives at a full assurance ".<sup>4</sup> The gradation from probabilities to proofs is, therefore, Hume argues, an insensible gradation; and the difference is more easily perceived in the remote degrees than in those that are contiguous or near.

Though this species of probability is, in Hume's view, 'the first in order'—preceding all proof—and must have attained perfection before 'entire proof' can exist, he makes no claim for it as being the path by which the mind *ordinarily* advances to newly acquired beliefs. No one, he contends,

<sup>1</sup> Cf. *Enquiry* I, 3 (24 n.): "Where two objects are contrary, the one destroys the other; that is, the cause of its annihilation. . . ." Cf. also *Treatise*, II, i, 2 (278); II, ii, 1 (330); II, iii, 9 (441-3).

<sup>2</sup> Cf. *Treatise*, I, iii, 11 (130).

<sup>3</sup> The distinction which Hume is here drawing between 'probability of chances' and 'probability of causes' (i.e. really between 'chances' and 'probabilities' strictly so called) becomes clearer when we note the differing rôles which he ascribes to *knowledge* and to *experience* respectively in their determination. 'Chances' consist in the alternatives *known* to be possible, as determined by the factors *known* to be involved in the type of happening under consideration. 'Probabilities' consist in the alternatives *experienced* as occurring in those uniformities of experience which are not invariable.

<sup>4</sup> *Loc. cit.*

who has reached the age of maturity, can any longer be acquainted with it, and this for the following reason. In the course of our earliest experiences we quickly learn that the connexion between causes and effects is invariable, and we have come to form so perfect a habit of building upon this experience, that from a single experiment we are ready to argue to the future. It is only because we are from time to time faced by contrary experiences, that we find ourselves constrained to hold this habit in check, and not to allow the single instance to determine our inference, save when the single instance has been "duly prepar'd and examin'd".

'T'wou'd be very happy for men in the conduct of their lives and actions, were the same objects always conjoin'd together, and we had nothing to fear but the mistakes of our own judgment, without having any reason to apprehend the uncertainty of nature. But as 'tis frequently found, that one observation is contrary to another, and that causes and effects follow not in the same order, of which we have had experience, we are oblig'd to vary our reasoning on account of this uncertainty, and take into consideration the contrariety of events.<sup>1</sup>

Hume, as we have said, carries over into the treatment of this new species of probability the considerations upon which he has been dwelling in his treatment of the probability of chances. For the two must, he argues, be closely connected. It is chance which lies at the basis of the seeming departures from causal uniformity; and is not 'chance', as already noted, a title only for 'a secret and conceal'd cause'? The causal relation is never itself variable; but owing to the complexity of nature's processes, and to their minuteness or remoteness, certain of the causes are hidden from our view, and in many cases these concealed causes are such as to hinder, or even entirely to neutralise one another. The variations in surface appearances, no less than the uniformities, rest, that is to say, on invariability in the various causal processes which together constitute the 'complication of circumstance' within which they one and all arise.

From the observation of several parallel instances, philosophers form a maxim, that the connexion betwixt all causes and effects is

<sup>1</sup> *Loc. cit.* (131).

equally necessary, and that its seeming uncertainty in some instances proceeds from the secret opposition of contrary causes.<sup>1</sup>

A similar statement comes in Book II, Part iii, in the section *Of liberty and necessity*.

Even when these contrary experiments are entirely equal, we remove not the notion of causes and necessity; but, supposing that the usual contrariety proceeds from the operation of contrary and conceal'd causes, we conclude that the chance or indifference lies only in our judgment on account of our imperfect knowledge, not in the things themselves, which are in every case equally necessary, tho' to appearance not equally constant or certain.<sup>2</sup>

Again, therefore, as in the case of 'chances', knowledge and ignorance are here for us intermingled. We have to proportion our beliefs, as best we can, to the contrariety of experiences; and this contrariety, Hume maintains, comes about in one or other of two ways. (1) The first way is by their producing an imperfect habit, proportioned to the relative numbers of the positive and negative instances involved. Custom is the agency at work; and it operates without allowing for reflexion, in a sheerly automatic manner. But here again, in the *mature* mind (that is, in the *human* mind, with its love of truth, "the first source of all our enquiries"<sup>3</sup>) such a method of procedure, in its pure and unadulterated form, is but rarely to be met with—in our probable reasonings even more rarely, Hume declares, than in those reasonings which are derived from sequences that are invariable. For contrariety of experience tends to arouse reflexion, and so to be *knowingly* taken into consideration. "We . . . carefully *weigh* the experiments, which we have on each side."<sup>4</sup> And our reasonings *in this kind*, just as in the case above noted of inference derived from a *single* experiment,<sup>5</sup> arise from habit *not directly* but in the *oblique* manner which constitutes the second mode in which belief is proportioned to the contrariety of appearances.

(2) Hume's account of this second method of proportion-

<sup>1</sup> *Treatise*, I, iii, 11 (132).

<sup>2</sup> *Treatise*, II, iii, 1 (403-4).

<sup>3</sup> *Treatise*, II, iii, 10 (448). This, it will be observed, is one of the many qualifications which Hume makes to his statement that custom is king. Cf. above, p. 382 ff.

<sup>4</sup> *Treatise*, I, iii, 12 (133). Italics not in text.

<sup>5</sup> Cf. above, pp. 94-5.

ing belief to varying appearances proceeds, notwithstanding that he has here emphasised the *knowing, reflective* character of the mind's procedure, on all fours with his account of the probability of chances. The emphasis, that is to say, is laid on the *number* of instances, positive and negative, and on the *automatic* manner in which they reinforce or destroy one another. The two methods thus turn out to be at bottom one and the same. Reflexion serves, at most, only to multiply the instances which are available and *knowingly* considered; it is not regarded as altering the automatic character of the mechanisms which thereupon determine the outcome, in respect of belief.

In this section Hume enters, however, at much greater length than in the section *Of the probability of chances* into the nature of these mechanisms; and the value and interest of his more lengthy discussion of them consists mainly in its showing how far, at the time of writing, he was prepared to go in the elaboration of a statics and dynamics of the mind, modelled on the pattern of the Newtonian physics. It also shows in how atomistic a manner, as determined by his fundamental assumption of independent simples, he views belief as a liveliness, varying solely in degree, and attaching as an intrinsic property not merely to this and that complex perception, but to each of the simple perceptions which, supposedly, go to constitute them. As I have argued, this teaching, with its emphasis on association, is a recessive, not a dominant, aspect in Hume's final teaching; and as evidence of this we have his reduction of these two lengthy sections of the *Treatise* to the four pages which correspond to them in the *Enquiry*. In the brief summary there given, the positions are also stated in much more general terms, with greater emphasis on the *reflective* estimate of the alternatives.

But finding a greater number of sides concur in the one event than in the other, the mind is carried more frequently to that event, and meets it oftener, in revolving the various possibilities or chances, on which the ultimate result depends.<sup>1</sup>

There, too, the claims which he makes on behalf of his doctrine of belief are stated in a much more tentative manner. It is

<sup>1</sup> *Enquiry* I, 6 (57)

'perhaps', he says, 'in some measure' true. And so instead of suggesting, as in the *Treatise*, that it has been amply justified, he now contents himself with a more modest conclusion.

Let any one try to account for this operation of the mind upon any of the received systems of philosophy, and he will be sensible of the difficulty. For my part, I shall think it sufficient, if the present hints excite the curiosity of philosophers, and make them sensible how defective all common theories are in treating of such curious and such sublime subjects.<sup>1</sup>

*How we extract a single Judgment from a  
Contrariety of past Events*

But to return to Hume's argument as given in the *Treatise*, there are two points, Hume states, which call for consideration: what determines us to make the past a standard for the future; and the manner in which we extract a single judgment from a contrariety of past events.

Again, as in treating of chances,<sup>2</sup> Hume argues that the *supposition* that the future will resemble the past is founded not on argument or inference of any kind, but solely on habit. This habit very quickly becomes 'full and perfect'; and the first impulse of the imagination, in any later operation, is determined by it. The first impulse is, however, 'broken into pieces' when there is contrariety in the images which it has to recall, and it has then to diffuse itself over all the images, giving to each

an equal share of that force and vivacity, that is deriv'd from the impulse. Any of these past events may again happen; and we judge, that when they do happen, they will be mix'd in the same proportion as in the past.<sup>3</sup>

This operation of the mind is, Hume says, precisely that which occurs in the estimation of the probability of chances, and everything that has been said on the one subject is therefore applicable to both.<sup>4</sup> The *perfect* habit makes us conclude in general that instances of which we have had no experience must resemble those of which we have had experience; at the same time the contrary experiences produce an imperfect

<sup>1</sup> *Enquiry*, I, 6 (59).

<sup>2</sup> *Treatise*, I, iii, 12 (134).

<sup>3</sup> Cf. above, p. 418.

<sup>4</sup> *Loc. cit.* (135).

belief, either by weakening this habit or "by dividing and afterwards joining [it] in different parts."<sup>1</sup>

In repeating, and applying, the argument which he has expounded in the treatment of chances, Hume elaborates it in considerable further detail. Thus in support of his view that belief is compounded of independent constituent beliefs, each of which, as an effect, is to be ascribed to its own separate cause, he cites a Newtonian analogy.

We may establish it as a certain maxim, that in all moral as well as natural phaenomena, wherever any cause consists of a number of parts, and the effect encreases or diminishes, according to the variation of that number, the effect, properly speaking, is a compounded one, and arises from the union of the several effects, that proceed from each part of the cause. Thus because the gravity of a body encreases or diminishes by the encrease or diminution of its parts, we conclude that each part contains this quality and contributes to the gravity of the whole. . . . As the belief, which we have of any event, encreases or diminishes according to the number of chances or past experiments, 'tis to be consider'd as a compounded effect, of which each part arises from a proportionable number of chances or experiments.<sup>2</sup>

Very characteristically Hume regards this principle as being illustrated and confirmed in an especially evident manner in the field of the passions.

We have a parallel instance in the affections. 'Tis evident, according to the principles above-mention'd, that when an object produces any passion in us, which varies according to the different quantity of the object; I say, 'tis evident, that the passion, properly speaking, is not a simple emotion, but a compounded one, of a great number of weaker passions, deriv'd from a view of each part of the object. For otherwise 'twere impossible the passion shou'd encrease by the encrease of these parts. *Thus a man, who desires a thousand pound, has in reality a thousand or more desires, which uniting together, seem to make only one passion; tho' the composition evidently betrays itself upon every alteration of the object, by the preference he gives to the larger number. . . .*<sup>3</sup>

Clearly Hume, in the first enthusiasm of his attempts to develop a statics and dynamics of the mind, is here committing himself to positions to which he could not permanently hold. The consequences are too extravagantly impossible. Have not shillings and pence — as by his phrase 'thousand or

<sup>1</sup> *Loc. cit.*

<sup>2</sup> *Loc. cit.* (136).

<sup>3</sup> *Loc. cit.* (141). Italics not in text.

*more* ' he himself suggests — as good a claim to independent recognition as the pounds? If the desire for a thousand pounds consists in a thousand desires, must not each of the thousand in turn consist of twenty desires for as many shillings, and each of the twenty again a twelvefold desire for the constituent pennies? Is it surprising that he has curtailed and modified this part of his teaching in recasting it for the *Enquiries*; and is it not a sign of maturer philosophical insight, and of his candour, that he should have done so?

The two features upon which Hume next proceeds to dwell are the *concurrence* and the *opposition* of the agreeing and contrary experiences. The concurrent experiences are declared to *run into* each other, with consequent heightening of their force and vivacity. This, he argues, is what has made possible the belief which attends probable 'reasoning' about causes or effects — a belief in *one* conclusion, not in a multitude of similar ones, which would only distract the mind, and which "in many cases wou'd be too numerous to be comprehended *distinctly* by any finite capacity". The term 'distinctly' (which I have italicised) indicates that Hume is not going back upon his view that the first impulse of the imagination awakens *all* the past instances. Instead he regards the fact that it has to do so as an argument in confirmation of the view that it is by fusing with one another that the images unite their forces, and give, precisely in virtue of their number, "a stronger and clearer view, than what arises from any one alone".<sup>1</sup>

Hume is no less explicit in his account of the *opposition* of the contrary experiences, and here again contents himself with dogmatically affirming that as contraries they annihilate one another.

As to the manner of their *opposition*, 'tis evident, that as the contrary views are incompatible with each other, and 'tis impossible the object can at once exist conformable to both of them, their influence becomes mutually destructive, and the mind is determin'd to the superior only with that force, which remains after subtracting the inferior.<sup>2</sup>

In conclusion,<sup>3</sup> Hume considers two possible objections. Why, it may be asked, do not repeated *voluntary* acts of the

<sup>1</sup> *Treatise*, I, iii, 12 (138).

<sup>2</sup> *Loc. cit.*

<sup>3</sup> *Loc. cit.* (140-42).

imagination have the same effect, in generating belief, as past experiences recalled in image? If the images unite, 'running into one act of the mind', in the one case, why not in the other? To this Hume replies that the difference of effect in the two cases is beyond question. Custom and education, no less than experience, do indeed produce belief by repetition *not* derived from experience, but in their case the repetition is not willed, i.e. is not designed by the individual who is subject to them. The *voluntary* act,<sup>1</sup> on the other hand, *is* being designed by the subject of the experience, and is therefore in each of its instances experienced as being separate and independent, and so as having a separate, not a conjoint influence.

The other objection is that we have a preference for a thousand guineas over nine hundred and ninety-nine, though the difference of the one unit is obviously too small a difference to be 'discernible in the passions'. On Hume's theory, passion is essential to all preference: preference is never sheerly rational or intellectual, however it may seem to be so. How then is this seeming exception to be accounted for? Hume's answer is of interest only as showing to what lengths, at the time of writing, he was prepared to go in defence of his teaching. We have here, he says, an instance of the operation of 'custom and *general rules*'.

We have found in a multitude of instances, that the augmenting the numbers of any sum augments the passion, where the numbers are precise and the difference sensible. The mind can perceive from its immediate feeling, that three guineas produce a greater passion than two; and *this* it transfers to larger numbers, because of the resemblance; and by a general rule assigns [!] to a thousand guineas, a stronger passion than to nine hundred and ninety nine.<sup>2</sup>

### *Defects in Hume's early Teaching as shown in these Sections of the Treatise*

Many of the chief defects in Hume's teaching in Book I of the *Treatise* are here prominently in evidence, more es-

<sup>1</sup> Hume here (140), in a note, refers the reader to his Introduction (xxii-xxiii), and presumably to the passage there in which he speaks of the disturbing influence of 'reflection and premeditation' upon the operation of the natural principles of the mind.

<sup>2</sup> *Loc. cit.* (141-2). Cf. I, iii, 13 (146 ff.).



pecially (1) his tendency to restate logical issues in psychological terms, with the suggestion that in treating the latter he has also dealt with the former; and (2) his professed denial of abstract ideas, and his consequent not infrequent assumption<sup>1</sup> that all intellectual processes have to be carried on in terms of images which are in all respects as specific and detailed as the happenings they recall. (Though each image has been declared to be an aggregate of separate and distinguishable simples, it is none the less regarded as having this extraordinary degree of constancy as a whole.) In both these respects the problems of probability, as treated by Hume, suffer serious distortion. He discusses probability as if it concerned not the probability that holds, and holds with certainty, as a *known* probability, formulated in exact numerical terms in respect of instances of a given *type* of happening — e.g. the two-to-one probability in the case of the die — but as if it were instead the question, what attitude the mind adopts in the way of *expectation and belief* towards a *particular single* happening that may be about to occur but has not yet occurred. The belief varies, he holds, in all degrees of imperfection — or of 'hesitation' — according as the probability is high or low.

Our belief, however faint, fixes itself on a determinate object.<sup>2</sup>

This is a source of considerable confusion in the exposition of his argument. Take, for example, a passage which is its own sufficient commentary — save perhaps in its somewhat ambiguous concluding sentence.

If our intention, therefore, be to consider the proportions of contrary events in a great number of instances, the images presented by our past experience must remain in their *first form*, and preserve their first proportions. Suppose, for instance, I have found by long observation, that of twenty ships, which go to sea, only nineteen return. Suppose I see at present twenty ships that leave the port: I transfer my past experience to the future, and

<sup>1</sup> As we have noted, it is only by implication — though very definitely so — not by any explicit statement, that Hume at times frees himself from this assumption. His omission of the discussion of abstract ideas from *Enquiry I* and his reference to them solely in a single note (section 12 [158 n.]) is highly significant, as showing how in this regard also he had come to be aware of the more than doubtful character of his earlier teaching.

<sup>2</sup> *Treatise*, I, iii, 12 (140).

represent to myself nineteen of these ships as returning in safety, and one as perishing. Concerning this there can be no difficulty [it being already agreed that the probability is nineteen to one]. But as we frequently run over those several ideas of past events, in order to form a judgment concerning one single event, which appears uncertain; this consideration must change the *first form* of our ideas, and draw together the divided images presented by experience; since 'tis to *it* [i.e. to this consideration and consequent drawing together of the divided images] we refer the determination [i.e. the specification] of that particular event, upon which we reason.<sup>1</sup>

Hardly less essential to Hume's argument in the manner in which he has chosen to expound it, is his requirement that every image be detailed, and in its detail an exact and exhaustive copy of the complex experience it recalls; and since all images referring to one and the same type of event have on this view, each in respect of the particular alternative envisaged, a full and entire similarity, it can only be in their quantity, i.e. in their number, that they differ.

The component parts of the probability [i.e. the instances which as being the more numerous yield 'probability'] and possibility [i.e. the contrary instances which as less numerous yield only possibility] being alike in their nature, must produce like effects; and the likeness of their effects consists in this, that each of them presents a view of a *particular* object. But tho' these parts be alike in their nature, they are very different in their quantity and number; and this difference must appear in the effect as well as the similarity. Now as the view they present is in both cases *full and entire*, and *comprehends the object in all its parts*, 'tis impossible that in this particular there can be any difference; nor is there any thing but a superior vivacity in the probability, arising from the concurrence of a superior number of views, which can distinguish these effects.<sup>2</sup>

The inadequacy of such a theory is the less apparent to Hume in that he keeps to such simple illustrations as that of the die. As each of the alternatives does indeed resemble every other in being the representation of the side of a die, and the sides which have the same inscription are therefore in image so far indistinguishable from one another, they are indeed suited to 'run into one another'; but this is by no means so when the

<sup>1</sup> *Loc. cit.* (134). In support of this conjectural interpretation of 'it' and of 'determination', cf. the wording in Hume's preceding paragraphs.

<sup>2</sup> *Loc. cit.* (137) Italics not in text.

alternatives are, for instance, differently designed ships or such departures from a specific uniformity as need have only that resemblance which is required for their being describable as being one and all departures from it. Hume's view of the contrary experiences as annihilating one another similarly rests on the assumption of their being *in every detail* opposite to one another; and the *counter-objection* then holds. In this, as in other respects, Hume's theory is but ill worked out; and further reflexion — if we may judge by the omissions from the *Enquiry concerning Human Understanding* — seems to have convinced him of its insufficiency.

Both these defects are connected with what is in other ways also, here as elsewhere in the *Treatise*, so unsatisfactory a feature of Hume's argument, viz. his view of belief as allowing of mechanical composition, and as consisting not in the absence or presence of anything that can properly be called 'judgment' or 'assent', but solely in the degree of immediately experienced vivacity. And, as the Appendix to Volume III of the *Treatise* shows, this and his treatment of the self were among the first, and were also indeed the main, sources of his early, and very just, dissatisfaction with the teaching of that work.