

## IV

# Belief and the Idea of Necessary Connection: The Positive Phase

Great standing miracle! That Heav'n assigned  
Its only thinking thing this turn of mind.

Whatever the merits of the negative phase of Hume's discussion of causality, the point of it is clear. It is an attempt to show both:

*That there is nothing in any object, consider'd in itself, which can afford us a reason for drawing a conclusion beyond it; and, That even after the observation of the frequent or constant conjunction of objects, we have no reason to draw any inference concerning any object beyond those of which we have had experience.* (p. 139)

Hume concludes that the inference from the observed to the unobserved is therefore not a transition that 'reason determines us to make', and so its source must be sought elsewhere.

He finds it in what he calls 'the imagination', or certain 'natural', 'primitive' dispositions of the mind. And his search for those dispositions or principles is a straightforward empirical or 'experimental' investigation. There is no doubt that we do make an inference or transition from the observed to the unobserved. And Hume finds that we make it only after we have observed a constant conjunction between two sorts of things, and are presented with a thing of one of those sorts. We always come to believe something about the unobserved in those circumstances because there is operative in the human mind a 'principle of union among ideas' to the effect that:

When ev'ry individual of any species of objects is found by experience to be constantly united with an individual of another species, the appearance of any new individual of either species naturally conveys the thought to its usual attendant. (p. 93)

The observation of a constant conjunction between As and Bs has the inevitable effect of creating a 'union in the imagination' between the

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idea of an A and the idea of a B. Whenever an idea of a thing of one of those kinds appears in the mind, its 'usual attendant' follows immediately, without any intervening reflection or reasoning being required. We have already seen that no reasoning leads us to make the transition. We just 'find' the idea of a B in our minds when we get an idea of an A. In fact, we cannot easily prevent that idea from occurring in such a situation.

Hume thinks that most cases of relying on past experience are like this. When we come to the edge of a cliff we do not deliberately reflect on whether or not we will go downwards if we step over the edge. We stop. And we do so 'immediately' and 'automatically'. But that is not to say that we would still have stopped even if we had had no experience of unsupported bodies falling and of human beings being injured when striking solid objects with great force. Past experience is what makes us believe and behave as we do, but not by providing us with premisses from which we reasonably infer our beliefs or our actions. It does so automatically in conjunction with certain principles or dispositions of the mind.

So far only one such principle has been invoked. It explains why the idea of a B appears in the mind whenever the idea of an A appears there in terms of a 'union in the imagination' between As and Bs. But there is more to explain. When we get an *impression* of an A we do not just get an *idea* of a B—we actually come to *believe* that a B will occur. That is just the inference Hume wants to explain. All that has been explained so far is why the idea of a B comes into the mind. Hume's further explanation of how an actual belief arises is primarily an explanation of how believing something differs from merely having an idea of it.<sup>1</sup> Believing involves having an idea, but it is also something more.

That there is a difference between thinking or conceiving or having an idea of something and believing that such-and-such is the case is obvious from the existence of disagreements. In a dispute with someone I do not believe what he says—in fact, I might believe the opposite—but I do understand or conceive of what he says. Only if I do is there a real disagreement. We can think or conceive of both sides of a question, although we *believe* at most one of them to be the case. What is the difference between 'simple conception' and belief? Hume thinks he is one of the first philosophers to see the enormous difficulties in answering this question (pp. 623, 628).

He argues that believing something cannot be a matter of adding to one's idea of it a further idea—perhaps the idea of reality or existence. First, we have no idea of reality or existence distinguishable and separable from the ideas we form of particular objects. To think of God and to think of God as existing are one and the same. There is no

difference *in idea* between them. This is not to say that to think of something is to believe that it exists. It is only to say that to think of something is to think of it as it would be if it existed, or to think of it as existing; and it is perfectly possible to do that without believing that the thing exists. So there is no separate idea that we could add to the idea of a thing in order to change simple conception into belief (p. 623).<sup>2</sup>

Furthermore, Hume argues, the mind has control over all its ideas. We can call up, unite and separate our ideas at will. But if believing differed from merely having an idea simply in the addition of some idea of reality or existence to the original idea, then we could believe whatever we want, at will. We would just have to put one of our ideas together with another one. But we cannot believe whatever we want, at will. So the difference between believing and conceiving does not consist in the addition of an idea of reality or existence to the original idea (pp. 623-4; *E*, p. 48).

With that wrong answer out of the way, Hume treats the problem of the nature of belief, and its difference from simple conception, 'as a question in natural philosophy, which we must determine by experience and observation' (p. 101). Because of what is observed to occur, he thinks belief must be understood to be a certain sort of thing. Given a 'union in the imagination' established by the observation of a constant conjunction between As and Bs, whenever one of those ideas appears in the mind, the other will follow. But it is obvious that the mere *idea* of an A produces only the *idea* of a B; it alone is not enough to make us *believe* that a B exists or will occur. If I am looking at two motionless billiard balls on a table and suddenly think of (i.e. have an idea of) the white ball's striking the red one, I do not then come to *believe* that the red one will move. I merely think of its moving. In order to get a belief I must have an *impression* of an A. An actual belief in the unobserved arises only when we make a transition from something observed or perceived. Hume thinks this is a simple observable fact about the circumstances in which beliefs in the unobserved actually arise.

He concludes that what distinguishes an idea or simple conception from a belief is therefore whatever it is that distinguishes an impression from an idea. And an impression differs from an idea only in its degree of 'force and vivacity'. So Hume feels he has no alternative but to say that a belief is 'a more vivid and intense conception of an idea, proceeding from its relation to a present impression' (p. 103), or, in his most common formulation, 'a lively idea related to or associated with a present impression' (p. 96).

Once belief has been so characterized, there is an obvious principle or disposition of the mind that will explain why beliefs arise when they do.

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

Only because this is true of the mind does a present impression produce a belief in the unobserved. So two different principles are needed to explain the occurrence of beliefs: the principle that an observed constant conjunction creates a 'union in the imagination' between things of two kinds, and the principle of the transmission of force and vivacity from a present impression to an associated idea.

It is clear that the second principle is thought to be needed only because of Hume's peculiar conception of the nature of belief. If a belief differed from a simple conception in some way other than in its degree of force and vivacity, this principle would not help explain why beliefs arise when they do.

Hume suggests that his account of belief is actually borne out by common experience, but the example he gives can hardly be said to support that contention.

If one person sits down to read a book as a romance, and another as a true history, they plainly receive the same ideas, and in the same order; nor does the incredulity of the one, and the belief of the other hinder them from putting the very same sense upon their author. His words produce the same ideas in both; tho' his testimony has not the same influence on them. The latter has a more lively conception of all the incidents. He enters deeper into the concerns of the persons: represents to himself their actions, and characters, and friendships, and enmities: He even goes so far as to form a notion of their features, and air, and person. While the former, who gives no credit to the testimony of the author, has a more faint and languid conception of all these particulars; and except on account of the style and ingenuity of the composition, can receive little entertainment from it. (pp. 97-8)

It is certainly a matter of common experience that there is some difference between believing what you read and taking it as fiction. But whatever that difference might be, it is clear that Hume has not captured it here. What he says is almost completely untrue in every respect, and he must have known that as well as anyone. Does a person knowingly reading fiction have a 'less lively conception' of the incidents described than one who takes what he reads as true? Does he

fail to 'form a notion' of the 'features, air, and person' of the characters described? This looks like a clear case of Hume's denying the obvious under the pressure of what he thinks his philosophical theory requires.

But he feels he has no alternative. And although in the Appendix to the *Treatise* (pp. 628-9) he expresses great dissatisfaction with that part of his theory of belief, he finds nothing satisfactory to put in its place, either there or in the *Enquiry*. But it is important to see that his dissatisfaction is not total.

Since belief differs from simple conception, believing must add *something* to the original idea. But it cannot consist in the addition of a new and different idea, so what is added must be only a different 'manner of conceiving' the original idea. Any other change would change the idea conceived, and so it would be impossible to conceive of and believe in the very same thing. About that part of the theory Hume never expresses the slightest doubt.

Then, under pressure from the theory of ideas and from a rather restricted conception of his philosophical task, he is led by the obvious facts about when beliefs arise to an unrealistic and unworkable account of what that difference in 'manner of conceiving' really consists in. We know that, given a union in the imagination between As and Bs, a belief that a B will occur arises only when an *impression* of an A is present, and not if only an idea of an A is present. But:

as the different degrees of force make all the original difference betwixt an impression and an idea, they must of consequence be the source of all the differences in the effects of these perceptions, and their removal, in whole or in part, the cause of every new resemblance they acquire. Wherever we can make an idea approach the impressions in force and vivacity, it will likewise imitate them in its influence on the mind; and *vice versa*, where it imitates them in that influence, as in the present case, this must proceed from its approaching them in force and vivacity. Belief, therefore, since it causes an idea to imitate the effects of the impressions, must make it resemble them in these qualities, and is nothing but a *more vivid and intense conception of any idea*. (pp. 119-20)

This explicitly argues that since the difference in degrees of force and vivacity between an impression and an idea is the *source* of all the differences in the effects those two kinds of perception have, and since an impression differs from an idea in having *beliefs*, and not mere conceptions, as its effects, therefore a belief differs from an idea only in its degrees of force and vivacity. The difference between an idea and a belief is the same difference as that between an idea and an impression.

The inference is not obviously a good one. Hume cannot deny the observable fact that a belief arises only when an impression is present; that a mere idea is not enough to produce it. But that still leaves open the question what a belief *is*, and how it differs from mere conception. He thinks that difference has to be the same difference as that between an impression and an idea, and since he thinks force and vivacity is the only difference there, he is led into his unsatisfactory theory of belief.

All that strictly follows from the facts is that beliefs, as opposed to mere ideas, are caused in part by whatever it is that distinguishes impressions from ideas. It is somehow because of the greater force and vivacity of an impression that a belief arises. But that is a fact about the cause or origin of a belief, not about what a belief is. Hume takes the further step of *defining* the difference between an idea and a belief in terms of force and vivacity because he thinks that is the only way to explain the occurrence of beliefs by means of general principles that cover more than the particular phenomenon being explained. The principle of the transmission of force and vivacity explains it simply and is also confirmed by other phenomena (p. 627).<sup>3</sup> But it commits Hume to the theory that a belief is just a more lively or vivacious idea.

If he gives up that theory his 'explanation' of the origin of beliefs will shrink to the straightforward observation that beliefs arise only when an impression is present. He feels he will have no account of *why* that is so. For a genuine explanation to be possible he thinks belief must be analogous to other things that are also explained by the same principles.

For if it be not analogous to any other sentiment, we must despair of explaining its causes, and must consider it as an original principle of the human mind. If it be analogous, we may hope to explain its causes from analogy, and trace it up to more general principles. (p. 624)

So his search for the simplest and most general principles within the theory of ideas leads him astray. Belief must be in some respects like other mental phenomena, but he cannot find a definition in terms other than those of force and vivacity because he thinks that is the only difference in the 'manner of conceiving' one and the same idea that the theory of ideas allows (p. 96).

Although Hume undoubtedly feels these pressures of theory, he also expresses serious misgivings about what he thinks the theory dictates. He thinks that 'greater force and vivacity' does not really capture the difference between a belief and a mere conception, but that there is a difference in *feeling* between them that is very difficult to describe:

this different feeling I endeavour to explain by calling it

a superior *force*, or *vivacity*, or *solidity*, or *firmness*, or *steadiness*. This variety of terms, which may seem so unphilosophical, is intended only to express that act of the mind, which renders realities more present to us than fictions, causes them to weigh more in the thought, and gives them a superior influence on the passions and imagination. . . . I confess, that 'tis impossible to explain perfectly this feeling or manner of conception. We may make use of words, that express something near it. But its true and proper name is *belief*, which is a term that every one sufficiently understands in common life. And in philosophy we can go no farther, than assert, that it is something *felt* by the mind, which distinguishes the ideas of the judgment from the fictions of the imagination. It gives them more force and influence; makes them appear of greater importance; infixes them in the mind; and renders them the governing principles of all our actions. (p. 629)

Hume's talk of believing as a feeling must not be misunderstood. He is not saying simply that a belief differs from a conception or an idea solely in the addition of a certain mental item, viz. a feeling, to the original idea. There would then be a difference in the items that are before the mind when someone believes something and when he merely thinks about it, and that is what Hume wants to deny. It is rather in its *effects* on the mind that an idea that is a belief differs from a mere idea—it is said to 'weigh more in the thought', to have a 'superior influence on our passions and imagination', and to be 'the governing principle of our actions'.

Hume seems never to have entertained the idea that this connection between belief and the passions and the will might constitute the very difference he seeks between belief and mere conception. That is not to say that he simply missed something obvious. No adequate theory of the nature of belief has been given to this day, and that is probably because it has been investigated in virtually complete independence from the notions of passion, desire, will and action.<sup>4</sup>

Hume claims that the question of the nature of belief had not been seriously considered by philosophers before his time. But he tries to answer it within the confines of an impossibly narrow theory. The theory of mind he uncritically inherited leaves no room for what has been called the 'intentional'<sup>5</sup> character of thought or psychological phenomena generally. Thinking for him is just a matter of there being a certain entity 'before the mind'. But in distinguishing conceiving from believing he seems to be aware that one and the same idea can be involved in different mental acts or 'modes of thinking'. The same

idea is present in each case, and surely Hume is right in thinking that the difference between them must somehow be understood in terms of the different 'manner' or 'mode' in which that idea is before the mind. But there are many more mental acts or modes of thinking than the two he considers.

For example, one 'manner of conceiving' an idea that Hume should have considered is denial. Although he speaks of disagreement, disbelief and dissent, he never tries to say what they are, perhaps because he thinks his theory of belief, such as it is, accounts for them. But that is not so.

If assent or belief is just a matter of having a lively idea before the mind, what is dissent or denial? It would seem to be either a matter of having that idea before the mind in some different 'manner', or else assenting to or believing the opposite of the original idea. But in the case at least of existential beliefs it makes no sense to Hume to talk of 'the opposite of the original idea'. If to think of God is to think of God as existing, or as He would be if He existed, then it is not possible to have the idea of God's not existing. And therefore it is not possible to have the belief that God does not exist by having 'in the assenting or believing manner' the idea of God's non-existence. Of course, it might be said that I believe that God does exist by having 'in the assenting manner' the idea, not just of God, but of God's existence; and therefore I believe that God does not exist by having 'in the assenting manner' the idea, not just of God, but of God's non-existence. But that could be true only if we had a separate idea of existence (and perhaps of non-existence as well) to add to our idea of God; and that is what Hume explicitly denies.

So we must look to the other alternative—to denial or dissent as another 'manner of conceiving'. On this view we have only the one idea, that of God, or of God as existing, and we can conceive it either by assenting and thereby believing that God exists, or by denying and thereby believing that God does not exist. And both of those 'attitudes' are to be distinguished from simple conception, in which one need not have an opinion one way or the other. But if denial is to be a completely different 'manner of conceiving' from both belief and mere conception, and if all differences among 'manners of conceiving' are just differences in degrees of force and vivacity, then denial will be just a matter of having an idea before the mind with yet a third degree of force and vivacity. Will it be stronger, or weaker, than belief? And how will it differ from a belief held with less than the highest degree of conviction? Will there be no difference between an atheist and a man who fairly strongly believes that God exists?

It is clear that, once we think not just about belief and conception, but about all the rest of the great variety of 'attitudes' we can take with

respect to a single idea, there is no plausibility at all in saying that they differ only in their degrees of force and vivacity. For any idea representing some state of affairs  $p$ , we can conceive of or contemplate what it would be like if  $p$  obtained, imagine that  $p$  obtains, hope that  $p$  obtains, wonder whether it obtains, ask whether it does, believe that  $p$  obtains, and so on. But there is no temptation to suppose that wondering or asking is just conceiving something more faintly or more weakly than believing it.

Hume wants one important consequence to survive from his theory of belief. The belief in the unobserved arises completely naturally, like any other phenomenon in nature. It arises by 'custom', as a result of repetitions in our experience. We do not decide to believe what we do; we are not free not to believe those things that are most fundamental for us. That is part of what Hume wants to emphasize when he calls belief a feeling or sentiment. Because of the inevitability of beliefs, it is impossible to put into practice a 'total scepticism', or even a Cartesian 'suspension of belief'. But such a state of mind is not Hume's aim. The scepticism he defends is put forward for a particular positive purpose, and it is no objection to say that scepticism is impossible to live by.

Nature, by an absolute and uncontroulable necessity has determin'd us to judge as well as to breathe and feel; nor can we any more forbear viewing certain objects in a stronger and fuller light, upon account of their customary connexion with a present impression, than we can hinder ourselves from thinking as long as we are awake, or seeing the surrounding bodies, when we turn our eyes towards them in broad sunshine. Whoever has taken the pains to refute the cavils of this *total* scepticism, has really disputed without an antagonist, and endeavour'd by arguments to establish a faculty, which nature has antecedently implanted in the mind, and render'd unavoidable. (p. 183)

The sceptical denigration of the role of reason and the consequent elevation of the importance of the primitive or natural dispositions of the imagination lead to the conclusion:

*that all our reasonings concerning causes and effects are deriv'd from nothing but custom; and that belief is more properly an act of the sensitive, than of the cogitative part of our natures.* (p. 183)

This view is intended to break down the alleged difference in kind between men and the other animals. Hume thinks his naturalistic theory of man is actually confirmed by the fact that animals too act simply on the basis of past experience and their present impressions. We are not inclined to suppose that they do so by deliberately

weighing evidence, considering the arguments on both sides, and then deciding to adopt a certain conclusion. We are willing to agree that they just 'find' themselves with certain beliefs or expectations. But they obviously are capable of thought or reason at least in the sense that they are intelligent beings who can learn from experience and profit from it.

Hume thinks that animal behaviour confirms his theory of man because the same kinds of explanations are available for behaviour that is observationally the same. Descartes' claim that animals have no souls was taken to imply that a science of animal behaviour is possible. But he thought that men, being spiritual substances whose essence is to think, are not amenable to the same kind of scientific treatment. Hume's theory denies that Cartesian claim. Both men and animals are objects in the natural world; both are subject to the same forces, and to influences of the same general kind. And those forces and influences are open to empirical investigation and discovery.

If Descartes were right in saying that animals have no souls, then Hume's arguments would show that men have no souls either. In order to explain their beliefs and actions there is no need to invoke a metaphysically detached faculty of 'reason' or 'will' operating independently of those causal chains that make up the natural world.

Hume does not deny that there is such a thing as reason, or the will. He denies only the traditional Cartesian conception of it.

To consider the matter aright, reason is nothing but a wonderful and unintelligible instinct in our souls, which carries us along a certain train of ideas, and endows them with particular qualities, according to their particular situations and relations. This instinct, 'tis true, arises from past observation and experience; but can any one give the ultimate reason, why past experience and observation produces such an effect, any more than why nature alone shou'd produce it? Nature may certainly produce whatever can arise from habit: Nay, habit is nothing but one of the principles of nature, and derives all its force from that origin. (p. 179)

The long discussion of the inference from the observed to the unobserved is supposed to be a detour on the road to discovering the source of the idea of necessary connection. We find no impression of necessary connection in any particular instance of causality, so the origin of the idea remains obscure. In explaining why he plans to concentrate on the inference from the observed to the unobserved, rather than searching directly for the source of the idea of necessary connection, Hume hints that:

Perhaps 'twill appear in the end, that the necessary connexion depends on the inference, instead of the inference's depending on the necessary connexion. (p. 88)

That is just how it turns out.

By the end of Section 8 of Part III of the first Book of the *Treatise*, and the end of Section V of the first *Enquiry* Hume has already identified and explained a pervasive and fundamental feature of the human mind. He has shown how and why we come to have beliefs about the unobserved, and he has indicated how important it is for human life that we do so. But however important it might be, he does not think it exhausts what is meant by 'having the idea of causality or necessary connection', and so the origin of that idea has yet to be accounted for. He goes on in each case to a long section 'Of the Idea of Necessary Connexion'. But what remains unexplained, and why does Hume think that what has been said so far is not enough?

One reason for his dissatisfaction is his commitment to the official theory of ideas. On that view, to have an idea is to have a certain item in the mind, and so to explain the source of an idea is to explain how that item gets into the mind. So far in the discussion of inferences from the observed to the unobserved no mental item has been identified that could plausibly be called the idea of causality or necessary connection. And according to the theory of ideas, for every idea in the mind there must be an impression, or impressions, from which that idea is derived, and we have found no such impression so far either. So Hume returns to the search for impressions from which the idea of necessary connection is derived, partly because the architectonic of the theory of ideas must be served. Without such a search his 'first principle' of the science of human nature would remain undefended.

But there is another reason. The phenomenon to be explained is not just our getting expectations on certain occasions. We come to believe, not just that a B will occur, but that it *must*. We have the idea, not just of an event of one sort always following an event of another sort in certain circumstances, but of there being a *necessary connection* between events of two sorts in certain circumstances. Of course, it is not immediately obvious what that belief and idea come to. What is the difference between observing an A and coming to believe that a B will occur, and observing an A and coming to believe that a B *must* occur? What is the difference between having the idea of Bs always following As and having the idea of a necessary connection between As and Bs? Hume thinks there are such differences. And he thinks he can explain how we come to have such beliefs and ideas. As we shall see, the two questions are connected. We must have a clear understanding of what is to be explained in order to tell whether a putative explanation of it is

successful. Hume concentrates more on the explanation than on the characterization of what is to be explained.

The observation of a constant conjunction of phenomena is what leads us to infer from cause to effect. Without that we would never get the idea of causality or necessary connection. But in each instance of causality we simply observe one thing following another, and we get no impression of any necessary connection. Only after repeated observation of Bs following As do we have the idea of necessary connection. But mere repetition obviously cannot reveal something in the instances that was not there to begin with, nor can it produce anything new in the objects or events in question. Each instance is independent of all the others, and would be what it is even though none of the others existed. How then can the repeated observation of Bs following As ever give rise to the idea of necessary connection, as it does?

Hume thinks it can do so only by producing something new *in the mind*, not in the instances observed. We know, Hume says, that repetition produces the idea of necessary connection in minds that originally lack it. And from the theory of ideas it follows that something else must be produced in the mind, and that that thing is an impression from which the idea is derived. That impression is not an impression of sensation, since we get no impression of necessary connection from any one of the instances. Therefore it must be an impression of reflection, or 'an internal impression of the mind'. The argument is expressed briefly as follows:

For after we have observ'd the resemblance in a sufficient number of instances, we immediately feel a determination of the mind to pass from one object to its usual attendant, and to conceive it in a stronger light upon account of that relation. This determination is the only effect of the resemblance; and therefore must be the same with power or efficacy, whose idea is deriv'd from the resemblance. The several instances of resembling conjunctions leads us into the notion of power and necessity. Those instances are in themselves totally distinct from each other, and have no union but in the mind, which observes them, and collects their ideas. Necessity, then, is the effect of this observation, and is nothing but an internal impression of the mind, or a determination to carry our thoughts from one object to another. (p. 165)

This passage, as well as others like it, is extremely obscure and confusing. Part of what Hume wants to say is fairly clear, but he is led into grave difficulties. He says that the only new thing that occurs in the mind after the repeated observation of Bs following As is a

'determination of the mind to pass from one object to its usual attendant, and to conceive it in a stronger light upon account of that relation'. That means that, whenever we have observed a constant conjunction between As and Bs and are currently observing an A, we are led to get an idea of, and a belief in, a B. To say that we are 'led' is to say that the first complex mental event (having an impression of an A after observing a constant conjunction between As and Bs) causes the second (believing that a B will occur). When that happens we get the idea of a necessary connection between As and Bs; that explains how and why that idea arises in the mind. Hume confuses matters by saying that that 'determination' is 'the same with' power or necessity, the idea of which we are trying to explain. He even says that necessity *is* 'an internal impression of the mind' or 'a determination to carry our thoughts from one object to another'.

The puzzling identification of the determination of the mind with an *impression* needs to be explained. Hume seems to be arguing that, since the idea of necessary connection comes into the mind only as a result of one mental occurrence's causing another, and since according to the theory of ideas the cause or source of every idea is an impression, therefore the one event's causing the other *is* the impression from which the idea of necessary connection is derived. But this seems incoherent. One event's causing another cannot *be* an impression, even if the events in question are mental events, and we are aware of their occurrence. We might well have an impression *of* their occurrence, but the one event's causing the other could scarcely *be* that impression, or any impression.

Hume does sometimes say that 'we immediately feel a determination of the mind', and this suggests that we feel, or are aware of, the one mental event's causing the other. To have that feeling or awareness would be to have an impression, so it would seem to follow that we have an impression of the causal or necessary connection between two mental events. This is not a line Hume can comfortably take. It implies that there is in fact a causal or necessary connection between two mental events, and that we get an impression of that connection by 'feeling' it, presumably by introspection. There would then be at least some instances of two things being related causally in which we can and do get an impression of the necessary connection that holds between them, and that is something Hume explicitly denies. He goes out of his way to argue that we cannot get an impression of necessary connection by observing the happenings in our own minds any more than we can by observing happenings in the outer world (*E*, pp. 64-9). So Hume cannot mean that we get an impression *of* the necessary connection between two events; that is perhaps why he slides into saying that one mental event's causing another *is* an impression,

rather than that it is what the impression is an impression *of*.

It is perhaps more plausible to suggest that we not only get an idea of, and a belief in, a B in the appropriate circumstances, but also that that idea appears in the mind *accompanied* by a certain feeling—a feeling of something like determination or inevitability. Of course, no such impression accompanies the first few instances of As and Bs we observe; the feeling begins to accompany the idea of a B only after repeated observations, so it is not literally an impression *of* something that is present in each individual instance. It is an impression that arises only from the repeated occurrence of certain kinds of ideas in the mind, and therefore it must be classified as an impression of reflection. But what does it mean to say that it is an impression or feeling *of* the inevitability with which something occurs? It is presumably to say more than that it is simply an impression of the occurrence of something, but how, if at all, can Hume explain what that extra element is? As we have seen, he cannot say that it is an impression *of* that occurrence's being caused, or *of* the necessary connection between that occurrence and whatever caused it.

This problem of explaining the content of the perception arises for the *idea* of necessity as well, as we see when we try to understand why Hume tends to identify necessity itself with a determination of the mind.

In a famous passage which has led to much criticism and misunderstanding Hume says:

Upon the whole, necessity is something, that exists in the mind, not in objects; nor is it possible for us ever to form the most distant idea of it, consider'd as a quality in bodies. Either we have no idea of necessity, or necessity is nothing but that determination of the thought to pass from causes to effects and from effects to causes, according to their experienc'd union. (pp. 165-6)

In saying that necessity is something that exists only in the mind, Hume does not mean that causality only operates in the 'inner' mental world, and that in the rest of nature there is no such thing as causality. Nor does he mean that things happen in inanimate nature only as a result of something happening in our minds. He means, in part, that we have the idea of necessity only because of the occurrence of certain events in our minds when our experience exhibits certain features. Contiguity, priority and constant conjunctions between things of two kinds hold or fail to hold completely independently of thought or sensation, and they are the only relations we can observe to hold among objects themselves. We also ascribe to objects an additional property of power, efficacy or causal necessity, but we get the idea of that power



only from 'what we feel internally in contemplating' the objects around us (p. 169). If it were a condition of having the idea of necessity that we get it from discovering the 'real' causes or the 'secret springs' of the correlations we observe, then we could never have the idea. But we do have an idea of necessity, so its origin must be accounted for solely in terms of happenings in our minds.

We have already seen what mental happenings produce the idea of necessity. Once we have that idea, we ascribe necessity to objects or events around us, or at least to the connections between them. Our tendency to ascribe necessity in this way is explained by appeal to another general human disposition.

'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 they occasion, and which always make their appearance at the same time that these objects discover themselves to the senses. Thus, as certain sounds and smells are always found to attend certain visible objects, we naturally imagine a conjunction, even in place, betwixt the objects and the qualities, tho' the qualities be of such a nature as to admit of no such conjunction, and really exist nowhere . . . 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; notwithstanding it is not possible for us to form the most distant idea of that quality, 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. (p. 167)

Hume's way of putting this subtle point is confusing, but it is not obvious that there is any completely satisfactory way of making it.<sup>6</sup>

The analogy with secondary qualities should reinforce the point that necessity is not something that actually resides in objects or the connections between them. Just as we ascribe redness to certain things in the world only because something happens in our minds when we observe things that, according to the traditional theory, actually possess no redness, so we ascribe necessity to certain things in the world only because something happens in our minds when we observe things (viz. correlations or conjunctions) that possess no necessity. Sounds and smells, Hume says, 'really exist nowhere', and the same holds for necessity.

Why, then, does Hume say that necessity *is* a determination of the mind, and that we cannot form any idea of necessity if we take it to be anything else? For one thing, if necessity literally *is* a determination of the mind to pass from the idea of one object to that of its usual

attendant, then necessity *does* exist after all. It exists in those minds in which that determination exists, and for Hume that includes all minds that have the appropriate experiences. That is perhaps why he finds himself saying that necessity exists only in the mind. But we already saw that that remark cannot be taken strictly literally.

Furthermore, if necessity just *is* a determination of the mind, then that is what our idea of necessity is an idea *of*. But if our idea of necessity is an idea of a determination of the mind, then in ascribing necessity to the connections between things we are simply saying something about our own minds. We are saying that our minds do, or would, expect a thing of one kind after having observed a thing of another kind. This would commit Hume to the subjectivistic or psychologistic view that every causal statement we make, whatever its putative subject-matter, is at least partly a statement about us. Rather than expressing a belief that something is objectively true of the connection between two objects or events, we would merely be asserting that something is happening or will happen in our minds when we observe certain objects or events.

This seems implausible as an account of the content of our ordinary causal beliefs about the world, and it is one that Hume should wish to avoid. He started out to explain how we come to believe that events are causally connected, or that a certain event must occur, given that another has already occurred. Even if there is nothing in reality which our belief adequately represents, still we do seem to have the belief that the connections between things are necessary in themselves, and would remain so whatever happened to be true about us. Of course, Hume argues that there is no necessity residing in objects—our belief that there is is actually false—but the psychologistic view denies the very existence of that belief. If we can have no idea of necessity as something residing in objects, and our only idea of it is as something that occurs or exists in the mind, then we cannot even have the false belief that necessity is something that is objectively true of the connections between objects or events in our experience. To have that false belief we need at least an *idea* of necessity as something true of the connections between events. But if we have no such idea then we do not, and cannot, have that belief.

The trouble stems from Hume's tendency to conflate the question of what our idea of necessity is an idea *of*, or what is our idea of necessity, and the quite different question of how that idea ever gets into the mind, or why we ever ascribe necessity to certain things we find in the world. He thinks he knows that our idea of necessity could arise only from certain happenings in our minds as a result of our observing constantly conjoined phenomena. Since he regards no other origin of the idea as possible, he tends to conclude that therefore the idea we get



from that source is an idea of those happenings in our minds. The inference is quite explicit in both the *Enquiry* and the *Abstract* where, having explained only how the idea of necessity arises, he concludes:

When we say, therefore, that one object is connected with another, *we mean only* that they have acquired a connexion in our thought, and give rise to this inference, by which they become proofs of each other's existence: (*E*, p. 76, my italics)

Upon the whole, then, either we have no idea at all of force and energy, and these words are altogether insignificant, or *they can mean nothing but* that determination of the thought, acquired by habit, to pass from the cause to its usual effect. (Hume (2), p. 23, my italics)

The arguments preceding these conclusions mention nothing about the content of the idea of necessity, or what 'necessity' means. They treat only of the origin of that idea in our minds, so Hume appears to be inferring a conclusion about the meaning or content of an idea directly from some facts about its origin.

He is probably led to make this inference by the application of his 'first principle' about impressions and ideas. Explaining the origin of an idea will serve to explicate its content because:

We have establish'd it as a principle, that as all ideas are deriv'd from impressions, or some precedent *perceptions*, 'tis impossible we can have any idea of power and efficacy, unless some instances can be produc'd, wherein this power is *perceiv'd* to exert itself. (p. 160)

Or, as he puts it in the *Enquiry*:

It seems a proposition, which will not admit of much dispute, that all our ideas are nothing but copies of our impressions, or, in other words, that it is impossible for us to *think* of any thing, which we have not antecedently *felt*, either by our external or internal senses. (*E*, p. 62)

Since Hume has already argued that we can never perceive the necessary connection between two things in any particular instance, it would seem to follow from this principle that we can have no idea of necessity. Or at least, that we can have an idea of necessity only as something we can and do perceive in particular instances. But we have already seen that Hume does not think that we actually *perceive* the necessity of the connection between any two events, even events that occur in our minds. If we did, then we could get the idea of necessity directly from one of our internal experiences, and we would not have to wait for the repetition of a number of instances.

The principle as stated, however, is obviously not true, nor is it what Hume established earlier. It is quite possible to have an idea of, or to think of, a unicorn, although we have never perceived one or had an impression of one. So the principle holds only for simple ideas, and not for all ideas. Therefore, if the application of the principle to the idea of necessity is to have the consequences Hume wants, he must regard the idea of necessity as a simple idea. And he does in effect acknowledge its simplicity.<sup>7</sup> But he sometimes also says he wants to explain our idea of necessity; to say what it is an idea of.<sup>8</sup> And if it is a simple idea, that is a hopeless task.

But even if the idea of necessity is simple, and all simple ideas are derived from their corresponding impressions, does it follow that we can never have an idea of necessity as something that objectively resides in objects, but only as something that exists in the mind? If it does follow, then Hume is indeed committed to psychologism, and thereby to the disappearance of the very belief in the objectivity of necessary connections that he originally wanted to explain. Does that disappointing conclusion really follow from Hume's explanation of the origin of the idea of necessity? I think not.

If the idea of necessity is a simple idea, then it must be derived from its corresponding impression. It is important to remember that, according to Hume, there is no impression of the necessity with which two events are connected, so whatever our simple impression of necessity might be, it is not an impression that arises when we are directly perceiving some feature of the world (*viz.* necessity) that presents itself to us. This holds just as much for the 'inner' mental world as for the 'outer' world of objects and events.

Hume isolates two different candidates as possible causes of the idea of necessity—a determination of the mind to pass from the idea of one object to that of its usual attendant, and an impression or feeling of determination. If he says simply that the determination of the mind is what causes us to get the idea of necessity, then his 'first principle' would be violated, since he would have found an idea which is caused by something other than an impression. Therefore, he should say that the idea is caused by the impression or feeling of determination. But that impression or feeling cannot be understood as a direct perception of something that is objectively true of the connection between two events in the mind, since that would violate his fundamental contention that we never get any impression of necessity from observing a particular instance.

The impression or feeling of determination from which the idea of necessity is derived must therefore be understood as just a certain feeling that arises in the mind whenever a certain kind of mental occurrence causes another. The impression or feeling is not an

impression of that one event's causing the other, or of the necessary or causal connection between them; it is just a peculiar feeling that accompanies, or is simultaneous with, the occurrence of that second event in the mind. That it always occurs there when it does is a fundamental fact about the human mind that Hume does not try to explain.

On this interpretation Hume is not committed to subjectivism or psychologism. For simple ideas, an idea is an idea of whatever its corresponding simple impression is an impression of. We get a 'feeling of determination' or necessity, and thereby get our idea of necessity. But once we repudiate the suggestion that the impression or feeling of necessity is a direct perception of the causal necessity holding between two mental events, or a direct perception of anything else happening in the mind, there should be no temptation to say that our *idea* of necessity is an idea of certain happenings in our minds. Our idea of necessity, which admittedly arises from a certain internal impression, will simply be an idea of whatever it is we ascribe to the relation between two events when we believe them to be causally or necessarily connected. And for the moment we can say only that it is *necessity* that we so ascribe.

Although that is perhaps disappointing, it is important to see that we are in no better position with respect to any other simple idea. We get our simple idea of red from an impression of red, but if we ask what our idea of red really is an idea of, we can say only that it is an idea of *red*. It is an idea of whatever it is we ascribe to a ripe apple when we believe that it is red. And there still seems to be nothing to say if we ask why that impression from which the idea of red is derived is an impression of *red*, or why the impression that arises when we see a ripe apple is an impression of *red*. Again, there seems to be nothing to say. But that does not imply that we have no idea of red, or that it is only an idea of something that happens in our minds.

So I am suggesting that Hume can allow that it is really *necessity*, and not just something that happens in the mind, that we project onto the relations between events in the world. In believing that two events are necessarily connected we believe only something about the way the world is, and nothing about our own minds, although we believe what we do only because certain things occur in our minds. And so it can be said after all that we really do believe (albeit falsely, according to Hume) that necessity is something that 'resides' in the relations between objects or events in the objective world.

The analogy with secondary qualities is helpful, although there too Hume usually fails to make the necessary distinctions. We say and believe that some apples and books are red—we ascribe redness to objects. We do so only because an impression of red appears in the

mind when we perceive those objects. According to the theory of secondary qualities, there is no redness in the objects. But it would be absurd to say that redness just *is* the impression in the mind, or that our idea of redness is just the idea of that impression, since when we ascribe redness to an apple we are not saying that that *impression* is in, or belongs to, the apple.<sup>9</sup> We suppose redness, not the impression, to be in the apple. Although, according to the theory, that supposition is wrong, its falsity does not force us to conclude that we do not really suppose redness to be something that resides in the apple after all. It is only because we do that we have the false belief about where redness 'resides'.

I am suggesting that Hume could give an exactly similar story about necessity. We say and believe that there are necessary connections between events in the world. We do so only because a certain impression—a 'feeling of determination'—arises in the mind when we observe constant conjunctions between events of two kinds, and not because we ever actually perceive any necessary connections between events. But it would be absurd to say that necessity just *is* an impression in the mind, or an occurrence in the mind, or that our idea of necessity is just the idea of something in the mind, since when we ascribe necessity to the connection between two events we are not saying something about our own minds. We suppose necessity, not something in our minds, to characterize the relation between two events. Although, according to Hume, that supposition is wrong, its falsity does not force us to conclude that we do not really suppose necessity to be something true of the connections between events after all. It is only because we do suppose that that we have a false belief about where necessity 'resides'. Because of the mind's natural tendency to 'spread itself' on external objects, when we get a 'feeling of determination' we then come to project necessity onto the objective relations between events in the world,<sup>10</sup> and thus come to believe, mistakenly, that there are objective necessary connections between events.

This suggestion might be thought to be unsatisfactory because it precludes us from saying anything illuminating about the content of our idea of necessity. When asked what is involved in our idea of necessity, or what it is an idea of, we can say nothing that helps explain or define it, even though we purport to know a great deal about its origin. That is perhaps as it should be if the idea of necessity is a simple idea. Because such terms as 'efficacy', 'power', and 'productive quality' are 'nearly synonymous'<sup>11</sup> with 'necessity' or 'necessary connection', Hume rejects out of hand all the 'vulgar definitions' as providing no real explanation of the content of the idea (p. 157). That is why he concentrates on explaining its origin.

But it is not just that we cannot say anything illuminating or helpful about what necessity *is*, or what 'necessity' *means*. That is true of 'red' and all other simple ideas. In the case of necessity, however, it is difficult even to say anything illuminating or helpful about what it is to have the idea of necessity, or how having that idea differs from not having it. And that is precisely what Hume is trying to explain. He wants to discover how we come to have the idea of necessary connection. I said earlier that he concentrates more on the explanation than on what is to be explained, and that is probably because of the theory of ideas. He does not see the problems involved in saying what it is to have the idea of X. I can try to suggest some of the difficulties in the case of necessity.<sup>12</sup>

If we ask why the idea of necessity comes into the mind, Hume's answer is that it is caused by a certain impression. Even if we grant that there is an impression that gives rise to that idea, we are still faced with the question of why that impression produces the idea of *necessity*. That, after all, is what was to have been explained. Hume's answer again is that that impression produces the idea of *necessity*, as opposed to some other idea (say, the idea of -1 or the idea of a golden mountain), because it is an impression *of* necessity or determination. But it looks as if he can say that only because he knows that impression is in fact the one that produces the idea of necessity.

In general, Hume deliberately says nothing about the causes of our impressions—his theory of the mind simply starts with them.<sup>13</sup> So in general he ignores the question of why some particular impression is said to be an impression of X. But in the case of necessity he does not simply ignore the question, he is precluded from answering it, since he cannot say that its being an impression of necessity consists in its being an impression derived from an instance in which necessity is exhibited. There are no such instances. So the impression and the idea of necessity simply live off each other. The idea is known to be an idea of necessity only because it is derived from an impression of necessity, and the impression is known to be an impression of necessity only because it gives rise to the idea of necessity.

In the *Treatise* Hume tries to give what he calls 'a precise definition of cause and effect' (p. 169), and in fact he gives two different 'definitions'.

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.' (p. 170)

This is a 'definition' of causality 'as a philosophical relation'. It describes all the objective relations that hold between the things we

designate as causes and effects.

Two things are related by what Hume calls a 'philosophical' relation if any relational statement at all is true of them. So causality is a 'philosophical' relation. All relations are 'philosophical' relations. But according to Hume there are also some 'natural' relations between things. One thing is 'naturally' related to another if the thought of the first naturally leads the mind to the thought of the other. If we see no obvious connection between two things, e. g. my raising my arm now in California and the death of a particular man in Abyssinia 33,118 years ago, we are likely to say 'There is no relation at all between those two events.' We would then be using 'relation' in something like the sense of 'natural relation'. Of course there are many 'philosophical' relations between those two events—spatial and temporal relations, for example. What we mean when we say there is no 'natural' relation between them is that the thought of one of them, if we had it, would not naturally lead to the thought of the other. Things that resemble each other, or are contiguous with each other, or are related causally, are 'naturally' related, according to Hume. That is to say that the thought of one thing naturally leads the mind to the thought of something resembling it, contiguous with it, or causally related to it. He usually expresses this by saying that resemblance, contiguity and causality are both natural and philosophical relations. They are the only relations that have this dual status.

As a natural relation, then, causality can be 'defined' thus:

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. (p. 170)

It is quite clear that these two 'definitions' are not equivalent, and that neither one implies the other, and yet they purport to 'define' the very same notion by 'presenting a different view of the same object' (p. 170). How can that be? Not more than one of them could be correct as a definition.<sup>14</sup>

Confusion, but perhaps not obscurity, can be avoided if we see that neither of them, strictly speaking, is a definition, or is intended by Hume to be an equivalence which expresses the full and precise *meaning* of 'X causes Y'. In the *Treatise* he expresses reservations about the adequacy of either 'definition', and in the *Enquiry* he explicitly confesses that 'it is impossible to give any just definition of cause, except what is drawn from something extraneous and foreign to it' (*E*, p. 76), although in that later book he nevertheless offers what are in effect the same two 'definitions' once again (*E*, pp. 76-7).

But even if neither is an adequate definition, or is intended to be, I

think we can understand why Hume puts them forward, and why he offers two different accounts. The relation between them is something like this. Any events or objects observed to fulfil the conditions of the first 'definition' are such that they will fulfil the conditions of the second 'definition' also. That is to say that an observed constant conjunction between As and Bs establishes a 'union in the imagination' such that the thought of an A naturally leads the mind to the thought of a B. That is just a fundamental, but contingent, principle of the human mind.

Furthermore, things could fulfil the conditions of the first 'definition' even if there were no minds at all, or if minds were very different from the way they actually are. The existence and precise nature of minds is irrelevant to the question whether members of one class of things are regularly followed by members of another class. But it is only because there are minds that any things at all fulfil the conditions of the second 'definition', and it is only because those minds are the way they are that things fulfil the conditions of the second 'definition' whenever they are observed to fulfil the conditions of the first. Only if there are minds will there be ideas of those things, and only if those minds are like ours will the idea of a member of one of those classes naturally give rise to an idea of a member of the other. And Hume thinks he has shown that it is only because things fulfil the conditions of the second 'definition' that any things in the world are thought to be related *causally* or *necessarily* at all. We get the idea of necessary connection only because of the passage of the mind from the thought of something to the thought of its 'usual attendant'. That is perhaps why he feels constrained to include something like the second 'definition' in any attempt to characterize our idea of causality. It is only because causality is in fact a 'natural' relation that we ever manage to get the idea of it at all. And that is a very important part of Hume's theory.

Since it is a contingent fact that we get the idea of necessity in the way we do, or that we get it at all, Hume's account of the origin of that idea leaves open the possibility of there being people with minds very like ours who do not have the idea of necessity at all.<sup>15</sup> They might be such that, although they can observe constant conjunctions between As and Bs, and thus acquire a 'union in the imagination' between As and Bs, so that the thought of an A naturally leads the mind to the thought of a B, that transition of the mind does not actually give them an idea of, and thus a belief in, a necessary connection between As and Bs. If there could be such people, they would have all the same beliefs about the course of their actual experience as we would have, and they could hold those beliefs with the same degrees of certainty as we do. In those respects they would be just like us. But we have an idea of

necessity which, by hypothesis, they lack. They do not believe, as we do, that a B *must* occur, or that given an A a B must occur, but only that a B *will* occur, or that if an A occurs a B will occur.

Such people could observe and then come to believe that certain things fulfil the conditions of Hume's first 'definition' of causality. But by hypothesis they do not believe everything we believe when we believe that two events are causally or necessarily connected, because they lack the idea of necessity. Therefore there is a sense in which what they believe does not fully match what we believe when we believe that two events are causally connected. But since what they believe is fully expressed in the conditions of Hume's 'definition' of causality as a 'philosophical' relation, it follows that what *we* believe when we believe that two events are causally connected is not fully captured by that 'definition'. We believe something more. That 'definition' does not completely express *what* we ascribe to the relation between two events we regard as being causally related. But Hume feels constrained to include something like the first 'definition' in an attempt to characterize our idea of causality because it expresses all the objective relations that actually hold between events we regard as being causally related. That is to say, necessity is not something that 'resides' in the objects, or in the relations between them. And that also is a very important part of Hume's theory.

But if the 'definition' of causality as a 'philosophical' relation does not quite capture all that we ascribe to the relation between events we regard as causally connected, can we say that the second 'definition' does capture it? I have argued that we cannot, since that would be to accept subjectivism or psychologism. On that view, when we believe that the first billiard ball's striking the second caused the second one to move, we would believe no more than that the striking was contiguous and prior to the movement of the second ball, that the idea of the first ball's striking the second leads the mind to the idea of the second ball's moving, and that the impression of the one leads the mind to a belief in the other. And, except for the talk of contiguity and priority, that is all about happenings in our own minds. It is not a belief about any apparently puzzling relations between events in the world. So the psychologistic interpretation would deny that we have the very belief whose origin Hume is trying to explain.

I have tried to suggest a way for Hume to avoid psychologism while saying as much as can coherently be said about necessity. Admittedly, there is not much to be said about what it *is*, and nothing Hume says can be taken as a strict definition of the notion, but that is as it should be for a simple idea all of whose potential *definienda* are 'nearly synonymous' with it. The two 'definitions' are intended to help us get as close to it as we can, but it is an idea that we cannot be given by

definition or explanation at all. All that can be said is that we either have it or we don't, and that we get it only after having the appropriate kind of experience. I think that is what Hume is responding to when he acknowledges that any putative definition of causality will have to be 'drawn from something extraneous and foreign to it' (*E*, p. 76).

A great many objections have been made over the years to Hume's account of causality and the inference from the observed to the unobserved, and I want briefly to mention a couple that bring out something interesting and important about Hume's theory. I have argued that that theory is itself causal; it is a causal explanation of how and why we come to think of things in our experience as causally connected.

It might be objected that that puts Hume, like all sceptics, in an especially embarrassing position. He has claimed that, since we have no reason to believe anything about the unobserved, we have no reason to believe in the existence of any causal connections between things. But if that is so, then in particular we have no reason to believe Hume's causal theory about the origin of our beliefs in causality or in the unobserved.<sup>16</sup> The sceptic cannot have his cake and eat it too.

I think Hume would not be bothered by this objection. He holds the theory he does because of what he has observed in human behaviour. He finds that whenever someone has observed a constant conjunction between two kinds of things, and has an impression of a thing of one of those kinds, then he gets a belief in the existence of something of the other kind. In other words, Hume claims to have observed a constant conjunction between two mental phenomena: (C) the occurrence of an impression of an A in a mind that has already observed a constant conjunction between As and Bs, and (E) that mind's getting a belief that a B must occur. Whether or not such a conjunction holds in human minds is a straightforward matter of observable fact. The objection to Hume presumably does not deny that fact. It says only that, on Hume's own sceptical grounds, those 'data' give us no reason to believe Hume's theory to the effect that (C) causes (E). That goes beyond the 'data', and for Hume no inference from the observed to the unobserved is reasonable.

But if Hume's theory is true, then anyone who agrees that there is in fact a constant conjunction between phenomena (C) and (E) will come to believe Hume's theory. That theory says that when we have found a constant conjunction between two sorts of phenomena (C) and (E), we will inevitably believe that phenomena of the (C) sort are the causes of phenomena of the (E) sort. So the objection comes to nothing more than a kind of pedantic bad faith. The critic believes the theory while trying to condemn it as unjustified.

This is a comfortable position for a theorist to be in. If any one objects that although the 'data' are as he says they are, still they give no reason to believe the theory, the theory predicts that the objector, granting what he has granted, will in fact come to believe the theory. His objection is in that sense idle. If the theory is true, its being open to sceptical objections will have no effect at all on its being accepted by everyone who has made the observations on which it is based. So Hume's sceptical arguments do not prevent him from pursuing the science of man. That is just Hume's point about scepticism. Although there is a clear sense in which it is true, and its being true is important, its truth does not and could not prevent anyone from doing what he naturally and unquestioningly does. I have tried to show that Hume's scepticism has a quite different aim.

Hume begins his discussion of causality by distinguishing causality from what I called 'mere coincidence'. Two events can be related by contiguity and temporal priority without being thought of as causally connected. But when we have observed a number of events of the same kinds and found them to be constantly conjoined, he says we will come to believe that they are related causally. The repeated observation of similar phenomena precludes our thinking of them as occurring together merely coincidentally.

Is that an accurate description of our thought about causality? This is to raise the question whether the 'data' actually are as Hume claims. Do we in fact think it is impossible for a recurring pattern of phenomena—events of one kind constantly happening contiguous with and just after events of another kind—to continue for all time, but merely coincidentally? Hume's theory implies that any such pattern we observed would lead us to believe that the phenomena were causally connected, and so it would be impossible for us to see it as merely coincidental. We could never believe in 'historical accidents on the cosmic scale' (Kneale (2), p. 229). But surely we acknowledge such 'accidents' as at least a possibility. Of course, any correlation we found to hold for a long time under varied circumstances would lead us to suspect that there was a causal connection of some sort in the offing, but after repeated failure to find any connection mightn't we suspect that the correlation is merely accidental? On Hume's theory we could not. We would inevitably be led to believe there is a causal connection.

Hume's central empirical claim, from which this controversial implication springs, is that observed constant conjunctions always lead us to generalize from those observed conjunctions onto the unobserved, or always lead us to believe that things of the two conjoined sorts are causally connected. But that does not seem to be true. In fact, if Hume's theory as it stands were true and complete, then we would have no expectations at all—or what comes to the same

thing, we would expect everything. That is because one and the same correlation between two sorts of things can lead to conflicting, even contradictory, expectations. The argument is due to Nelson Goodman (Goodman (1), pp. 74–83).<sup>17</sup>

After we have observed a number of emeralds and found each of them to be green, Hume says we would be led to believe that the next emerald we observe will be green, or perhaps even that all emeralds are green. And the only thing that leads us to that expectation is the observed constant conjunction. Now let us define a new predicate 'grue' as follows: X is grue if and only if either X is first observed before 2000 A.D. and X is green, or X is not first observed before 2000 A.D. and X is blue. Obviously, every emerald observed so far has been grue. Hume's theory predicts that, given the observed constant conjunction between being an emerald and being grue, we will come to believe that the next, or perhaps every, emerald is grue. But there is no doubt that we do not get that expectation in those circumstances, especially if we are examining emeralds on the eve of 2000 A.D. Hume says nothing about why we do not get it. His theory, in the absence of further qualifications, implies that we would.

This is not just an example of our getting two incompatible expectations when some of our evidence points towards one conclusion and some of it points towards another. For example, we might think that a murder suspect would have benefited greatly from his alleged victim's death, so he probably did it, but on the other hand, he spent the weekend in Milwaukee, so he probably did not. We have conflicting bits of evidence. In the case of 'grue' and 'green', however, the very same objects lead to two incompatible expectations if Hume's theory is applied equally to both. If our observation of emeralds can lead us to expect both that the next one will be green and that it will be blue, then it is easy to see that the same observations could be shown to lead us to expect anything at all, and therefore everything. We need only introduce a new predicate with something even more bizarre in the place of 'blue' in the definition of 'grue', and then by applying Hume's theory it would follow that we would get any bizarre expectation that can be mentioned.

The key point in this criticism, and one that Hume says nothing about, is that a prediction based on a number of instances described as belonging to a certain class can conflict with predictions based on those very same individuals described as belonging to another class. The way the individual events are described or classified is crucial. We do get the belief that the next emerald will be green; we do not get the belief that it will be blue. So what distinguishes those correlations we do generalize into the future from those we do not must have something to do with the terms or classes under which the instances in question are

described. This is enough to show that not just any constant conjunction is sufficient to make us expect a member of the second class, given an impression of a member of the first.

This suggests a possible line of defence for Hume. He always speaks of our getting expectations from *observed* constant conjunctions. Obviously, the mere existence of a constant conjunction would not give us any beliefs if we were not aware of it. If we are the sorts of beings who perceive the world in terms of classes or kinds like 'green' rather than 'grue', that would help explain our generalizing into the future in terms of the former, but not the latter, predicate. There is no doubt that, in some sense, 'green' is a natural predicate for us in a way that 'grue' is not, although of course we understand both of them. So the real difficulty that now arises is what can be said about the difference we all recognize between those two types of predicates. In what sense, and why, does 'green' stand for a 'natural kind' for us, one on the basis of which we generalize into the future, whereas 'grue' does not? That is the fundamental question to which this profound criticism of Hume inevitably leads.

It is not that Hume is completely wrong in his account of the origin of our beliefs in the unobserved, but only that what he says, even if correct, cannot be the whole story. I have tried to suggest what more is needed, but I have no idea how the distinction between 'good' and 'bad' predicates is to be drawn. That is the problem Nelson Goodman has called 'the new riddle of induction' (Goodman (1), p. 80). It is a problem in the naturalistic spirit of Hume, but an adequate solution would inevitably lead far beyond the strict confines of his theory of ideas. That is not the least of the considerations in favour of pursuing that line of investigation.