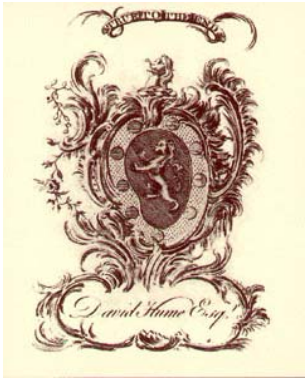

Hume's Ideas about Necessary Connection
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HUME'S IDEAS ABOUT NECESSARY CONNECTION

1. Introduction

Hume asks, "What is our idea of necessity, when we say that two objects are necessarily connected together"?[1] He later says that he has answered this question, but it is difficult to see what his answer is, or even to see precisely what the question was.

Currently there are two main ways of understanding Hume's views about our idea of necessary connection. These interpretations divide on the question whether Hume allows that we can speak meaningfully of an objective and necessary connection between two events. The one interpretation, which I will call epistemological, says that Hume does allow meaning to that phrase. On this view, justification is the only topic of Hume's negative message about necessary connection. We can mean what we say when we talk about necessary connection, but we cannot justify what we (meaningfully) say. That, according to this interpretation, is the negative outcome toward which Hume aims his investigation of the origin of our idea of necessary connection. He isn't denying we have that very idea; he is denying that its origin allows us to justify applying it to anything.

The other interpretation, which I will call psychological, says that Hume does not allow meaning to the phrase, "an objective and necessary connection between two events." According to this interpretation, once we see the origin of our idea of necessary connection, we realize that we cannot mean by "necessary connection" what we thought we meant. Those words allow us to speak only of a certain

feeling in our minds, not of an objective feature of the world. Of course, the psychological interpretation partly resembles the epistemological one: it, too, denies that we can justify saying objective necessary connections exist. But on the psychological interpretation this follows a fortiori from the central negative claim, a claim which itself concerns meaning, not justification.

In what follows, I will present these two interpretations more carefully and critically, and then I will advance my own. I think Hume was trying to express a view very different in kind from either of the two I've just mentioned. I think we can get a good idea of the kind of view Hume had by looking at Newton's treatment of gravitational force. Roughly, Newton thought that while there certainly are gravitational forces in objects, we can say nothing about them except that they are whatever it is that accounts for a specific set of observable regularities. Hume's views about necessary connection, or causal power, are roughly parallel. He does not doubt that we may speak meaningfully of objective necessary connections -- if we mean just some unknown quality in objects that underlies the constant conjunction of their sensible qualities. Inevitably we try to mean something more than this, but any such attempt is doomed to failure. Showing that we cannot mean something more is the point of investigating the origin of the "idea."

I will be arguing that with this interpretation we can handle the sets of texts and problems that undercut the prevailing two interpretations, and reconcile those sets of texts with one another, despite their apparent inconsistency. This interpretation also has the advantage of attributing to Hume a view closely connected with a

distinctively eighteenth-century way of setting up these problems. Finally, I think the interpretation brings out nicely an instructive and central failing of Hume's views about necessary connection.

2. The Epistemological View

Although there are hints of this kind of interpretation in other books, it is really articulated and defended only in Barry Stroud's book, Hume.[2] In what follows here, I mean to be sketching out and commenting on that interpretation.

Hume wants to find out what our idea of necessary connection is. He conducts his investigation according to the dictum, "as we have no idea, that is not deriv'd from an impression, we must find some impression, that gives rise to this idea of necessity, if we assert we have really such an idea." (T 155) He argues, of course, that among our experiences of causes and effects, there are no impressions of necessary connection. Our experiences of the objects include only contiguity, priority and constancy of conjunction. These experiences, however, themselves cause in us an "internal impression, or impression of reflexion." (T 165)

> 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. (T 165)

Because we have this impression precisely when we begin to think that constantly conjoined events are necessarily connected, Hume thinks it is fair to say that this impression is the origin of our idea of necessary connection.

Now, it may seem as if the epistemological view is doomed from the start. Hume apparently thinks that what our idea of necessary connection is can be fully explicated by the impression from which the idea is derived. But the impression Hume points to isn't an impression of a feature of the objects; it is just a feeling, or internal impression. Whatever it is, it isn't an impression of necessity.

The epistemological view can offer a two-part solution to this prima facie problem. First, the impression Hume has located is, presumably, simple. Thus it presumably lacks sufficient structure to yield an inconsistency when applied to objects. Why shouldn't it be correctly described as our impression of necessity? It arises at just the right time, under just the right circumstances, and apparently nothing about its content rules out treating the content as depicting a feature of objects. Second, the mind very naturally does ascribe the content of this internal impression to objects. Hume says,

> '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. (T 167)

The idea of necessary connection, then, is an idea of a feature of objects. Roughly, it is an idea of a simple quality or "feature," and it is usually "of objects," because the mind has a propensity to project its internal impressions onto things.

The negative result of Hume's investigation, on this interpretation, is that we find we are unjustified in attributing this feature to objects. The attribution would be justified only if we

actually observed this feature to belong to objects, only if we had sense-impressions of it. Hume says, for example, that "if we ... ascribe a power or necessary connexion to these objects; this is what we can never observe in them, but must draw the idea of it from what we feel internally in contemplating them." (T 168-9) The investigation of the origin of our idea of necessary connection uncovers, not our failure to have just that idea, but our failure to have had experience of necessity in objects. Lacking such experience, we can never justify claiming that there are necessary and objective connections between events.

I want now to look critically at this epistemological interpretation. I think we must begin by scrutinizing what Hume says about our spreading the feeling of determination upon objects. I think we will see that Hume denies we can do it.

Notice first that Hume compares the feeling of necessity with sounds and smells. He says,

> 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 qualities, tho' the qualities be of such a nature as to admit of no such conjunction.... (T 167)

One might suppose that Hume is referring here to a certain doctrine about secondary qualities, the doctrine that although we attribute, say, redness to porphyry, redness is not, in fact, a feature of any material object. But this supposition does not square well with the remark that the qualities "are of such a nature as to admit of no such conjunction." It squares even less well with the passages in which

Hume spells out his claim about sounds and smells (and tastes). Here are some characteristic arguments:

> An object may be said to be no where.... Now this is evidently the case with all our perceptions and objects, except those of the sight and feeling. A moral reflection cannot be plac'd on the right or on the left hand of a passion, nor can a smell or sound be either of a circular or a square figure. These objects and perceptions, so far from requiring any particular place, are absolutely incompatible with it, and even the imagination cannot attribute it to them. (T 235-236)

> Here then we are influenc'd by two principles directly contrary to each other, viz. that inclination of our fancy by which we are determin'd to incorporate the taste with the extended object, and our reason, which shows us the impossibility of such an union. (T 238)

> But if ever reason be of sufficient force to overcome prejudice, 'tis certain, that in the present case it must prevail. (T 239)

So we may well suppose that Hume's point in talking about sounds and smells is to say that the mind cannot exercise its general spreading propensity in the particular case of the idea of necessary connection. The content of the relevant impression cannot be conjoined in thought with ideas of objects. But if this is so, then Hume must be denying that our impression of determination allows us to speak meaningfully of an objective and necessary connection between events. And indeed, Hume says just that:

> And how must we be disappointed, when we learn, that this connexion, tie, or energy lies merely in ourselves, and is nothing but that determination of the mind, which is acquir'd by custom, and causes us to make a

> transition from an object to its usual attendant, and from the impression of one to the lively idea of the other? Such a discovery not only cuts off all hope of ever attaining satisfaction, but even prevents our very wishes; since it appears, that when we say we desire to know the ultimate and operating principle, as something, which resides in the external object, we either contradict ourselves, or talk without a meaning. (T 266-267)

Hume is unclear about <u>why</u> the impression of determination cannot be an impression of a feature of objects. The passages about sounds, smells and tastes are of no help here, because they turn on special arguments about extended (visible and tangible) objects. He often talks as if it is the peculiar innerness of the impression of determination that is to blame for its incompatibility with objects (e.g., T 266, 167); he stresses that the feeling of determination is in the mind. Now, his point had better not be that the feeling is in the mind because it is an impression. The fact that our impression of red is an impression does not prevent us from attributing red to an apple. Rather, his point must turn on the fact that the impression of determination is a feeling, or impression of reflection.

For some reason, then, Hume is claiming that a feeling isn't the kind of impression whose content can be or can represent a feature of an object. And we can get a glimmer of his reason. Imagine, for example, saying that the feeling you have when you are angry is a feature of the brick you stubbed your toe on. You might mean that the brick felt angry with you, or that it caused you to feel angry. But could you mean that <u>what</u> you feel is a feature of an object?[3]

At any rate, I think there is decisive textual evidence against the epistemological interpretation. Hume is saying that the spreading propensity is thwarted by the feeling of determination, because the content of that impression -- call it necessity if you will -- cannot be a feature of objects. What Hume despairs over is not the unjustifiability of our claims about necessary connections, but the fact that in making them "we either contradict ourselves, or talk without a meaning."

3. The Psychological Interpretation

For just the reason the epistemological interpretation fails, the psychological interpretation begins to look attractive.[4] If our idea of necessary connection is copied from a feeling of determination, and if the contents of such internal impressions cannot depict features of objects, then in talking about necessary connections, mustn't we succeed only in talking about our own feelings? Consider, for example, Hume's claim that we cannot "transfer the determination of the thought to external objects, and suppose any real intelligible connexion betwixt them" because the feeling of determination is "a quality, which can only belong to the mind that considers them." (T 168) By undercutting the epistemological interpretation, such remarks seem to support the psychological one.

On the psychological interpretation, Hume is telling us that a central part of our discourse about causation cannot mean what we thought it meant, but must mean something else entirely. If we would (could?) be clear and careful in our use of words, we would always hold ourselves ready to delete "necessary connection between events" and insert,

'feeling I usually have under such and such circumstances.' We would understand that to say two kinds of events are necessarily connected is only to say that on having an impression of an event of the one kind, I am likely to have a certain feeling plus a lively idea of an event of the other kind. Arguably this revisionist attitude emerges in this passage:

> ... when we speak of a necessary connexion betwixt objects...; in all these expressions, so apply'd, we really have no distinct meaning.... But as 'tis more probable, that these expressions do here lose their true meaning by being wrongly apply'd, than that they never have any meaning; 'twill be proper to bestow another consideration on this subject, to see if possibly we can discover the nature and origin of those ideas, we annex to them. (T 162)

I think it is very natural to take up the psychological interpretation after rejecting the epistemological one, but I also think there are good reasons to be dissatisfied with it in turn. The reasons are first an objection to the view it attributes to Hume and then a textual objection to the attribution.

The objection to the view is simple. People just aren't talking about their feelings when they talk about necessary connections. Suppose there are and even can be no necessary connections between objects. It is perhaps mysterious, then, what we mean by 'necessary connection.' Still, we know enough about what we mean to know that we are not making a claim about our feelings when, for example, we deny that there are necessary connections between objects.

Revisionist metaphysicians typically are unmoved by protests of this kind, and a defender of the psychological interpretation might say that Hume ought to be unmoved, too. But a close look at some texts shows, I think, that this is not Hume's attitude at all. Rather, he is himself happy to talk about necessary connections between objects, or, what is "nearly synonimous" (T 157), the powers or productive qualities in objects. These texts fall into two rather different classes. In texts of the first kind, Hume refers to various specific causal powers in things. In texts of the second kind, he refers to secret or unknown powers, again in objects.

Let me first take note of three texts of the first kind. In the Introduction to the Treatise, Hume warns us that no science "can go beyond experience" (T xviii) and that in the "science of man" we ought to reject "any hypothesis, that pretends to discover the ultimate original qualities of human nature." (T xvii) So far, this sounds at least consistent with the psychological interpretation. But Hume also says that with "careful and exact experiments" we can form some "notion" of the mind's "powers and qualities." (T xvii) Somewhat similarly, in the section 'Of liberty and necessity,' Hume admonishes us to remember the results of the section 'Of the idea of necessary connexion' but then goes on to say that "the cohesion of the parts of matter arises from natural and necessary principles, whatever difficulty we may find in explaining them." (T 401) Third, there is an interesting footnote in the Enquiry in which Hume discusses the relation between Newton and occasionalism. He warns us that when we speak of inertial power, we only "mark" the "facts" we "find by experience" and must not pretend "to have any idea

of the inert power."[5] But then he goes on to say, "It was never the meaning of Sir ISAAC NEWTON to rob second causes of all force or energy" and approvingly remarks that "LOCKE, CLARKE, and CUDWORTH, never so much as take notice of [occasionalism], but suppose all along, that matter has a real, though subordinate and derived power." (E 73)

In each of these passages we find some sort of warning about the limits we run up against in thinking about powers, but we also find some sort of talk about powers in objects, talk that appears to lie within those limits. Now, I think that a proponent of the psychological interpretation could solve this apparent problem, but I also think the solution is unacceptably unattractive. Roughly, we could say that in this sort of passage, Hume is himself enacting our natural tendency to make the (incoherent) assumption that we can meaningfully speak of the various causal powers of things.

Hume does of course enact various of our natural and rationally indefensible tendencies. But I don't think we should see him as doing that in these passages. These passages, after all, are ones in which the pretensions and incoherence of our assumptions about necessary connection are being explicitly acknowledged or diagnosed.

Let me now take note of two texts of a second kind. In the Treatise, Hume says,

> 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. (T 168)

Hume then implies that we do not fall into "obscurity and error" if we "make the terms of power and efficacy signify" "these unknown qualities." (T 168) Consider also the form in which Hume first casts the Enquiry's skeptical argument about causal inferences. He does not question the meaningfulness -- even truth -- of this:

> The bread, which I formerly eat, nourished me; that is, a body of such sensible qualities was, at that time, endued with such secret powers.... (E 34)

He argues only that it does not follow

> that other bread must also nourish me at another time, and that like sensible qualities must always be attended with like secret powers.... (E 34)[6]

In both these passages, Hume at least appears to use 'power' to refer to something in the object. Again, the proponent of the psychological interpretation can solve the apparent problem, by claiming that Hume is being ironic when he says or implies that we may speak of secret powers without falling into error or obscurity. But if there is irony in these passages, surely it is reserved for the idea that we can be acquainted with the quality in a thing that constitutes its power to bring about its effect.

In summary, I think that we ought to read the two kinds of passage I have quoted as conflicting with the psychological interpretation. They imply, in one way or another, that Hume is happy to allow that in speaking of powers, we can and do mean something in objects, not a sort of feeling of ours. And this implication seems to force us back to the epistemological view.

4. Newton

From this survey, I conclude that there are several desiderata for a more satisfying interpretation. I have in mind these: (1) We need to make sense of the passages where Hume seems to license meaningful talk about specific causal powers in objects. (2) We need also to understand why Hume is willing to speak of unknown or secret causal powers in objects. (3) We need to see how our idea of necessary connection is, all the same, somehow deficient. That is, we need to see why Hume considers the discovery of the feeling of determination to be deflationary and why he says we cannot even state all we want to know about necessary connection without emptiness or contradiction. Again, the epistemological interpretation provides the first and second desiderata, but not the third; the psychological interpretation the third, but not the first two.

I think there is a way to provide all three desiderata and to see the various texts fall into place. What we need, I will be arguing, is to see Hume as holding a different kind of view from the kind the current interpretations attribute to him. And I think that by looking briefly at some of Newton's very general views about gravitational force, we can more easily imagine the general sort of view Hume had about our idea of necessary connection.

I think that on these topics there are interesting analogies between Newton and Hume, and although I don't know whether Hume explicitly thought about these analogies, I do think they are not accidental.[7] So in my brief look at Newton, I will also draw on a book about Newton by Colin Maclaurin,

a mathematician and physicist whose ideas about Newton were especially well known to Hume during all of his adult life.[8]

I want to bring out three kinds of claim Newton made about gravitational forces. The first is less a claim than a presupposition. It is strongly realist:

(1) There are gravitational forces; they are among the qualities of bodies.

The second is a methodological claim:

(2) We investigate these forces when we observe certain measurable qualities in bodies and formulate functions relating these measurements.

The third is an epistemological claim:

(3) No one knows anything more about gravitational forces than this: They are those qualities in bodies that account for certain qualities we can observe.

One way to bring out the significance of these claims is to consider how one might disagree with them. Berkeley provides a central example of explicit disagreement with the first claim. He thinks that gravitational forces do not exist. To speak of them is not to "set forth the nature of things" but merely to "serve the purpose of mechanical science and reckoning."[9]

The second and third claims were deployed against Newton's predecessors, against "the pretended clear ideas of Des Cartes, and metaphysical speculations of Mr. Leibnitz -- not to mention the extravagancies of Spinoza and a thousand crude notions that deserve no memory."[10] Some of these benighted philosophers of nature tried to explain observable phenomena (Maclaurin is thinking especially of the gravitational phenomena of terrestrial bodies) by "deriving" them from vortices, magnetism, or atmospheric pressure.[11] Worse, some

philosophers "overlook the intermediate links in the chain of causes, and hastily resolve every principle into the immediate influence of the first cause" or into "monads and pre-established harmony."[12] The failure of these methods and claims, and the success of Newton's, show that

> ...it is very preposterous to deduce natural philosophy from any hypothesis, tho' invented to make us imagine ourselves possest of a more complete system of metaphysics, or contrived perhaps with a view to obviate more easily some difficulties in natural theology ... [I]n natural philosophy, truth is to be discovered by experiment and observation....[13]

Perhaps if we bear in mind the way Newton is cutting against some of his predecessors and contemporaries, we will be less likely to find descriptions of Newton's method platitudinous. Maclaurin describes it this way:

> From experiments and observations alone, we are enabled to collect the history of nature or describe her phaenomena. By the principles of geometry and mechanics, we are enabled to carry on the analysis from the phaenomena to the powers or causes that produce them.[14]

These remarks bear directly on the discovery and investigation of gravitational force. Newton wants, of course, to avoid making the kind of hypotheses his predecessors spun out from their imaginations and instead to describe attractive forces no further than observations permit. And if this is the right strategy, then, he thinks, there are important limits on our knowledge of gravitational forces. Concerning 'attraction,' for example, he says,

> I use that Word here to signify only in general any Force by which Bodies tend toward one another, whatsoever be the Cause. For we must learn from the Phaenomena of Nature what Bodies

> attract one another, and what are the Laws and Properties of the Attraction, before we enquire the Cause by which the Attraction is perform'd.[15]

Maclaurin says that Newton uses the word 'attraction' "when bodies seem to act upon each other at a distance," but "he pretends not, by the use of this term, to define the nature of the power, or the manner in which it acts."[16]

It is not clear how we are to understand these remarks. Notice that in the last two quotations there is reference not just to the Phaenomena of Nature and gravitational force, but also to the "Cause" of the force, or its "nature," or the "manner in which it acts." In trying to understand this distinction, let us first consider a few examples. I think that Descartes was hypothesizing about the "cause" of gravitational force when he postulated vortices, and that Gilbert was, too, when he said that bodies have a "desire or inclination" toward a body "where they can rest, safe from all peril."[17] And I think that Newton's own hypothesis that gravitational forces are mechanically exerted through an intervening aether is an hypothesis about the "cause" or "nature" of gravitational force.

Newton is clear about two points concerning these underlying "causes." First, we don't know anything about them; second, if we did, our knowledge would have to come in suitable ways from observation and experiment. He says,

> But hitherto I have not been able to discover the cause of those properties of gravity from phenomena, and I frame no hypotheses, for whatever is not deduced from the phenomena is to be called an hypothesis; and hypotheses, whether metaphysical or physical, whether of occult qualities or mechanical, have no place in experimental philosophy.[18]

Our ignorance about the underlying "causes" does not, however, imply that we don't really know that gravitational forces exist, or that we don't really know anything about them. This supposed implication is the main burden of the criticism (made by Leibniz and others) that Newton's gravitational forces are "occult qualities."[19] In the introduction to Maclaurin's Account, we read that "the weak charge of occult qualities has been frequently repeated; foreign professors still amuse themselves with imaginary triumphs."[20] But

> the followers of Sir Isaac Newton will for ever assert their right to stop where they find they can get no farther upon sure ground; and to make use of a principle firmly established in experience...; although they perhaps despair of tracing the ulterior cause of that principle.[21]

What is still not clear is Newton's attitude toward the possibility of knowledge concerning underlying causes. On the whole, he seems to think it is possible, because on the whole he seems convinced that the underlying causes are to be described in terms of a stuff whose properties are of types already known to us. At times, however, he seems more pessimistic.[22] After all, if we have no experimental evidence bearing on the "cause" of gravitational force, then we have no particular reason to suppose that the "cause" will be experimentally discoverable. To "despair of tracing the ulterior cause of that principle" is perhaps even more pessimistic. It is perhaps to believe that an "ulterior cause" is by its nature something out of the reach of any stage of progress in science.

With that, we begin to move back onto recognizably Humean territory. As we do, let me quote the central part of Hume's longest account of Newton's work. Hume says Newton was

> [c]autious in admitting no principles but such as were founded on experiment; but resolute to adopt every such principle, however new or unusual.... While Newton seemed to draw off the veil from some of the mysteries of nature, he shewed at the same time the imperfections of the mechanical philosophy; and thereby restored her ultimate secrets to that obscurity in which they ever did and ever will remain.[23]

When Hume says Newton showed the "imperfections of the mechanical philosophy," he must mean that Newton attributes non-mechanical operations to bodies. These, presumably, are the operations of gravitational force. In other words, Hume is supposing that we cannot describe their underlying causes in terms of types of properties already known to us. This is why Newton has restored nature's ultimate secrets to permanent obscurity. But Hume also says that Newton has drawn the veil from some of nature's mysteries -- presumably by discovering new and unusual principles founded on experiment. This description fits Newton's "discovery" of gravitational force especially well. The recognition of gravitational force is new and unusual; its phenomena were mysteries; Newton rests its laws on observation. On this reading, then, Hume sees Newton as holding that our ignorance of underlying causes (even if our ignorance is necessary) does not imply our ignorance of the existence of gravitational forces, or the inappropriateness of investigating them empirically.

5. A New Interpretation

I am going to interpret Hume as making four claims, the first three roughly analogous to the three I attributed to Newton. The first is this:

(1) We do in a sense have an idea of necessary connection: we can form the bare thought just of there being some feature of objects that underlies the constant conjunctions of their observable qualities.

The methodological claim is this:

(2) The way to investigate specific powers of specific kinds of objects is by finding constant conjunctions of sensible qualities.

The roughly analogous epistemological claim is this:

(3) We cannot know anything more about the causal powers of objects than what we know in having the bare thought described in (1) and observing constant conjunctions.

A further claim, both psychological and epistemological, is this:

(4) Inevitably, we want to know <u>what</u> feature of objects is their causal power. We naturally try to fill in our bare thought with something. This attempt must fail. (The candidate for filler is the content of our feeling of determination; the attempt at filling in leaves us talking without a meaning or contradicting ourselves.)

The first claim, that we have a sort of bare thought of necessary connection, helps to make sense of several of the passages that pose problems for the psychological interpretation. I have in mind the passages where Hume so blandly speaks of unknown or secret powers in objects. Now we can read him as saying so long as we "make the terms of power and efficacy signify" <u>just</u> certain "unknown qualities" (T 168), we can correctly take ourselves to be speaking of powers in objects.

By speaking of the 'bare thought' of some feature of an object, I mean to be ducking the question whether, in Hume's sense, we have an "idea" that is suitably bare. Arguably we do; perhaps this bare thought is no harder to derive from impressions than any other similarly general idea. In any case, I myself am now inclined to agree with Michael Wrigley, who has argued[24] that Hume never said that words lack meaning when they lack an associated "idea." In other words, a term is not necessarily meaningless just because its meaning cannot be appropriately derived from impressions of sense or reflection. This view would be especially helpful in making sense of some of the passages I've been considering. For example, Hume declares himself

> 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; that being a quality, which can only belong to the mind that considers them. (T 168)

Our only official "idea" of necessary connection is "incompatible" with objects. But we can avoid applying this idea to objects, by making the terms 'power' and 'efficacy' mean or signify some unknown quality in objects. (Whether Hume quite generally

distinguishes idea from meaning is of course a large question. I don't think I need to answer it in order to make plausible the interpretation I'm urging.)

The second, methodological, claim fits in neatly with the other passages that run against the psychological interpretation. When, for example, we "mark" the "facts" we "find by experience," we do not have to limit ourselves simply to recording these facts, thereby robbing "second causes of all force or energy." (E 73) Instead, Hume is saying, finding these facts <u>is</u> investigating the forces and powers in nature. Our idea of forces and powers in nature is the idea of that which is manifested in constant conjunctions of observable qualities. It makes sense, then, to investigate specific forces and powers by discovering specific constant conjunctions.[25]

The third and fourth claims are negative, and I think it might be helpful to consider them together. We see the cue ball move, then we see the object ball move; we see that sort of sequence over and over. We have as well the thought that there is something-or-other in things that explains the constancy of such conjunctions; we have the thought that there is some unknown quality in objects that accounts for the fact that had the one event not occurred, the second wouldn't have, either. Beyond these experiences and thoughts, however, lie limitations on knowledge <u>and</u> on meaning.

Let me mention one limitation on knowledge that is not of direct relevance here. Hume argues, of course, that our causal inferences are unjustified. This cue ball is moving across the table, but until we actually see this object ball move, we are not justified in believing that it will. Hume sometimes puts the point in this way: Until we

see this object ball move, we have no justification for saying this cue ball has the power to move it. But this skepticism about causal inferences implies only that we do not know what specific causal powers an object has until we see what sensible qualities it manifests. This skepticism does not imply that we cannot justify saying there are causal powers in objects, or that we do not really know what we are talking about when we speak of causal powers. Those negative conclusions emerge from Hume's exploration of the idea of necessary connection.[26]

Here is how they emerge. Having, as we do, the thought of a something-or-other in objects that underlies the regularities we observe, we very naturally want to know, or at least form an idea of, what quality the underlying something-or-other is. We want to have an "idea" of this quality, a thought of the type that is derivable from some impression. Then even if we never can directly observe that quality in objects, and so never can justify saying, 'There's one now,' we can at least form a definite conception of the quality. We can at least imagine what it would be like to observe it in an object. We might suppose this is our situation with regard to microstructures. Even though we never can observe them directly, we can have suitably specific ideas of them.

Microstructures, however, cannot be powers, whatever Locke may have thought. Hume argues that no ideas derived from sense-impressions will serve to fill in the bare thought of necessary connection. We want to know what specific quality in the cause answers to the bare thought of necessary connection, but we cannot so much as form an idea of such a quality. As Hume says, we cannot

> point out that circumstance in the cause, which gives it a connexion with its effect. We have no idea of this connexion, nor even any distinct notion what it is we desire to know, when we endeavour at a conception of it. (E 77)

The mind does not stop trying to fill in the bare thought just because it cannot find the right kind of filler. It seizes instead on its non-sensory, internal impression of transition or determination. This is altogether natural.[27] The notion of constant conjunction is intimately bound up with the bare thought of necessary connection, and the feeling of determination arises in our minds just when we have observed a constancy of conjunction, i.e., just when we are in a position to say there is something in the object answering to our bare thought of necessary connection. This combination of circumstances and of the mind's tendency to spread itself on objects seems to invite us to fill in the bare thought with the content of the feeling.

But <u>this</u> attempt leaves us worse off than ever. We suppose we have a filled-in idea of necessary connection, but when we trace the filler back to its origin, our discovery

> not only cuts off all hope of ever attaining satisfaction, but even prevents our very wishes; since it appears, that when we say we desire to know the ultimate and operating principle, as something, which resides in the external objects, we either contradict ourselves, or talk without a meaning. (T 266-7)

We would be in a bad enough state if we were filling in the bare thought of necessary connection with the feeling of determination for no better reason than circumstance and the mind's spreading tendency. But our actual state is worse than that: we <u>cannot</u>

combine the filler and the bare thought as we want to and supposed we had. To think of the bare thought as filled out by the content of the feeling of determination is to have an incoherent thought.[28]

The negative side of what I am attributing to Hume, then, makes sense of the texts the epistemological interpretation has trouble with. When we try to spread our feeling of determination upon the objects, we are doomed not to unreasonableness but, worse, to empty talk or contradiction. We cannot fill in the bare thought of a something-or-other in the object.

Earlier, I referred to an important flaw in the view I am attributing to Hume, and in closing I'd like to say a little about it. I think Hume's central failure lies in supposing that 'quality' is the right metaphysical category for necessary connection. This supposition means that the bare thought will be the thought of an unknown feature of an object, a feature like enough to redness to be a quality but unlike -- utterly unlike -- in being completely unspecifiable, unimaginable, unknowable. No wonder, then, if we desire to know more about necessary connection: it is a something, right there in the object, but we can't see it or feel it, taste, smell, or hear it. We are left imagining that another sense might help, a sense that can detect these 'unknown qualities.' But this, I think, shows not that we are constitutionally barred from understanding what causal connection is, but just that understanding causal connection is quite unlike seeing red.*

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1. David Hume, A Treatise of Human Nature, ed. P.H. Nidditch (Oxford: Clarendon Press, 1978), p. 155. Subsequent references will be cited as 'T' followed by the relevant page number(s).

2. Barry Stroud, Hume (London: Routledge & Kegan Paul, 1977), pp. 68-95.

3. Why this is so is a nice question, and I don't know quite how to answer it. It is, I think, at the crossroads of two issues. One is the differences between feelings and sensations. The other issue is the differences between Humean impressions, of whatever kind, and experiences of features of objects.

4. A great many of Hume's readers have found it so. See, for example, Jonathan Bennett, Locke, Berkeley, Hume (Oxford: Clarendon Press, 1972), p. 296ff; Antony Flew, Hume's Philosophy of Belief (New York: The Humanities Press, 1969), pp. 123-4; D.G.C. MacNabb, David Hume (Oxford: Blackwell, 1966), ch. 7.

5. David Hume, Enquiries concerning Human Understanding and concerning the Principles of Morals, ed. P.H. Nidditch (Oxford: Clarendon press, 1975), p. 73. Subsequent references to the first Enquiry will be cited as 'E' followed by the relevant page number(s).

6. Hume does say in a footnote, "The word, Power, is here used in a loose and popular sense." (E 33) In section four of this paper, I will explain what I think the loose sense -- and a stricter sense -- are.

7. The claim that Newton was generally very important to Hume is made out convincingly by James Noxon in his book, Hume's Philosophical Development (Oxford: Clarendon Press, 1975).

8. Maclaurin's ideas about Newton would have been part of the intellectual life of Edinburgh when Hume was there in his teens. See Ernest Mossner, The Life of David Hume (Oxford: Clarendon Press, 1980), ch. 4. Parts of the Dialogues concerning Natural Religion, which Hume wrote late in his life, are virtual paraphrases of parts of Maclaurin's An Account of Sir Isaac Newton's Philosophical Discoveries (London: Patrick Murdoch, 1775). See R.H. Hurlbutt III, "Hume and Scientific Theism," Journal of the History of Ideas, 17 (1956).

9. George Berkeley, De Motu, secs. 17, 18, in The Works of George Berkeley, D.D., ed. George Sampson (London: George Bell & Sons, 1898), vol. II, pp. 61-2.

10. Op. cit., p. 99.

11. Ibid., p. 253.

12. Ibid., p. 100.

13. Ibid, p. 95.

14. Ibid., p. 232.

15. Sir Isaac Newton, Opticks (New York: Dover, 1952), p. 376.

16. Maclaurin, p. 115; also pp. 253-4.

17. Quoted by Mary Hesse in Forces and Fields (London: Thomas Nelson and Sons), p. 128.

18. Principia, tr. Andrew Motte, tr. revised by Florian Cajori (Berkeley: University of California Press, 1946), Book III, General Scholium, p. 547.

19. I am uncertain who wrote the introduction to Maclaurin's book.

20. Maclaurin, p. xx.

21. Ibid., p. xxi.

22. See Noxon, p. 53.

23. History of England (London: Scholey, 1810), vol. 9, pp. 538-9.

24. In as yet unpublished work.

25. This, by the way, helps to explain another puzzle. In his two definitions of cause, Hume first mentions succession and contiguity, and then he says something that presumably bears in some way on necessary connection. (A definition had better not leave out the relation that is "of much greater importance, than any of the other two" (T 7).) The puzzle lies in saying what bearing constant conjunction has on necessary connection. Similarly, we need to explain why Hume says that "constancy forms the very essence of necessity" (E 96n) and that

> [n]ecessity may be defined two ways, conformably to the two definitions of cause, of which it makes an essential part. It consists either in the constant conjunction of like objects, or in the inference of the understanding from one object to another. (E 97)

Putting together the first two of the claims I am attributing to Hume, we can make sense of these remarks. Constant conjunction and necessary connection are tightly linked in the ways described by those two claims. (Perhaps this linkage also helps us to understand why there is a counterfactual conditional in the first definition in the Enquiry.)

26. But there is a complication here. Hume might want to say that because we are never in a position to justify claims about constant, or universal, conjunction, we are also never in a position to justify any claims about specific causal powers, even retrospectively. That is, Hume might want in the end to say we aren't justified in moving from, "The bread, which I formerly eat, nourished me" to, "[A] body of such sensible qualities was, at that time, endued with such secret powers." (E 34) This would not undercut the second, methodological, claim, but it would mean that our actual investigations of specific powers in objects are, at any given time, unsuccessful. Even so, this implication would not settle the question whether we have the bare thought of necessary connection, or even the ideas of specific powers in things. Nor does it explain why our talk about necessary connections ends somehow in contradiction or meaninglessness. I must say that I do not know what Hume wants to say about this.

27. The long paragraph at T 222-3 is ostensibly about our opinions concerning substances, but it looks equally relevant to our opinions about causal connection. If so, then I would take Hume to be saying here that the vulgar naturally (a) have the bare thought of necessary connection, (b) suppose that it is filled in, and (c) suppose that they perceive in objects the very sort of connection they suppose they have a filled-in idea of. Reflection shows us that we don't perceive any connection between objects. False philosophy then starts looking for the filler ("in matter, or causes" (T 223)).

True philosophy concludes that "we have no idea of power or agency, separate from the mind, and belonging to causes." (T 223) In reaching this conclusion, the true philosopher will in a way have "return'd back to the situation of the vulgar" (T 223); he will have recognized the inevitability of having the vulgar ideas and beliefs.

28. This is one important reason why it is crucial that Hume give two definitions of 'cause.' We want to combine the two 'necessary connection' clauses so as to have a single, specific conception of necessary connection as a feature of objects. But this is exactly what we cannot do. If we hope to talk with "meaning" or at least without "contradiction," we must keep these definitions separate and mean by 'cause' only what the one or the other says.

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