

## HUMEAN HUMILITY

AISLING CREAN

The Australian National University

[aisling@coombs.anu.edu.au](mailto:aisling@coombs.anu.edu.au)

*Forthcoming in*

*Logical Analysis and History of Philosophy*, Volume 13, 2010,

‘David Hume’s Epistemology and Metaphysics’, edited by Helen Beebee and Markus Schrenk.

We thought we knew what Hume said about causation. He said that causation was nothing but constant conjunction, a mere regularity obtaining between events. But recent news from the field of Hume studies is telling us that this is precisely what Hume did *not* think. Recent interpreters of Hume, such as John Wright (1983), Edward Craig (1987), Galen Strawson (1989), Helen Beebee (2006) and P.J.E. Kail (2007), have all argued in one way or another that Hume was a *sceptical realist* about causal powers grounding necessary connections in nature.<sup>1</sup> A sceptical realist about these things is one who believes in their existence but deems them to be somehow unknowable — ‘secret’ as Hume says — epistemically inaccessible in some non-trivial way (Richman 2000, 1). This sceptical realist interpretation of Hume is sometimes called The New Hume, and in opposition to it are defenders of the old view, The Old Hume, let’s say (Bennett 1971; Blackburn 1990; Winkler 2000).

My aim here is not to say decisively whether or not Old Hume or New Hume is the true Hume. Instead, I want to look at a problem for the sceptical realist interpretation of Hume, a problem that threatens to make Hume out to be endorsing a philosophical position that is self-

---

<sup>1</sup> See also Livingston 1971, Costa 1989, Ayers 1997, Buckle 2001. For the New Hume, causal powers and the necessary connections they ground are supposed to be the worldly analogues of *a priori* inference. That is, necessary connections in nature necessitate or guarantee their effects occur in much the same way that the premises of a valid argument necessitate or guarantee the truth of the argument’s conclusion. So, on the New Humean view of causation, causes and effects are not logically distinct, like the premises and conclusion of a valid argument. Compare Beebee 2006, 3.

undermining or dialectically unstable by his own empiricist lights. It takes root in the claim that there exist causal powers grounding necessary connections in nature and that these are unknowable. It's problematic because it seems difficult to square with Hume's empiricism, and his epistemology, as his epistemology is traditionally understood. Section 1 sets up the problem and distinguishes it from another problem in the literature. Section 2 sketches three sources of knowledge for Hume and the variety of knowledge he thinks they yield. It also clarifies the nature of the scepticism the New Humean thinks Hume is endorsing. Section 3 argues that Hume thinks that there is a fourth source of knowledge yielding a different variety of knowledge from that discussed in section two. Section 4 argues that Hume thinks that the principle of custom can justify our beliefs about the world and that the justification custom can yield is externalist and not internalist in character: it is not something the subject needs to be directly aware in order for it to perform its justificatory task. Section 5 then shows how to bring the lessons of sections 2, 3 and 4 to bear on the puzzle for New Hume and shows how to solve it in a way that squares well with Hume's texts. Whether or not Old Hume or New Hume is the true Hume, New Hume's position is dialectically stable after all.

## **1. What the problem is and what it is not<sup>2</sup>**

The epistemological problem for the New Hume that I want to discuss here should not be confused with another putative problem for the New Humean sceptical realist interpretation already much discussed in the literature. This other much-discussed problem begins from what Galen Strawson has called 'the meaning tension' in the sceptical realist interpretation of Hume.<sup>3</sup> The meaning-tension takes off from the assumption that Hume's first principle of the

---

<sup>2</sup> This problem for New Hume has an analogue in Kant. Both New Hume and Kant appear to have problems with 'unknowable somethings' — causal powers and necessary connections in New Hume's case, things-in-themselves in Kant's. Langton (1998) discusses the Kantian analogue and gives a novel solution to the Kantian problem. My expression of the New Humean problem draws on Langton's expression of the Kantian problem in Chapter 1 of her book. However my solution to the Humean problem differs substantially from Langton's solution to the Kantian problem.

<sup>3</sup>See Strawson 1989,10-11. See also papers by Strawson, Winkler, Craig and Blackburn in Read and Richman 2000 for further discussion.

science of human nature, the Copy Principle, is the statement of his theory of meaning.<sup>4</sup> In particular, it takes off from the assumption that Hume is endorsing the claim that a term failing to express a genuine idea is utterly devoid of content — ‘meaningless’, as Hume says – if there is no corresponding impression to be found. For Hume tells us that we determine whether or not there is a genuine idea by hunting for its corresponding impression and the worry for the New Hume interpretation is that when we consider the idea of necessary connection in nature, Hume is quite clear that there is no corresponding impression to be found. Thus, against the New Hume reading, Hume is standardly taken to be endorsing the view that

(E1) All we can ever know of putative causal powers and necessary connection in nature is regular succession.

On the assumption that the Copy Principle embodies a theory of meaning, it is standardly assumed to follow from this that

(S1) All we can possibly manage to mean by ‘causal powers in nature’ and ‘necessary connections in nature’ is regular succession.

The upshot of this is standardly taken to be that Hume thinks that we cannot form any thought *at all* of causal powers and necessary connection in nature. All uses of phrases like ‘necessary connection in the objects’ are utterly devoid of content: they are nothing more than meaningless noise. Finally, from this, Hume is frequently understood to be drawing an ontological conclusion about causal power and necessary connection:

(O1) All that causal power and necessary connection in nature actually is, is regular succession.<sup>5</sup>

---

<sup>4</sup> Hume states the Copy Principle like this: ‘...all our simple ideas in their first appearance are deriv’d from simple impressions, which are correspondent to them, and which they exactly represent’ (THN 1.1.1.2, 4).

<sup>5</sup> My expression of this problem draws on Strawson 1989. However, while Strawson formulates the problem in terms of ignorance of causal powers in nature, I have formulated it in terms of ignorance of causal powers *and* necessary connections in nature. Strawson’s position is that Hume didn’t think that there are unknown necessary

And this seems to scupper the sceptical realist interpretation of Hume that says that he believes in causal powers and necessary connections in nature. The objection is that Hume's semantic commitments, allegedly written into the Copy Principle, mean that he thinks that we cannot even begin to form the barest thought of such things. In turn, this is taken to mean that the whole question of the existence of causal powers and necessary connections in nature is just nonsensical: it's a non-issue because Hume thinks that there is no genuine thought about such things. By these lights, it seems that a view committing Hume to the existence of causal powers and necessary connections in nature seems utterly unwarranted. The claim that New Hume is the true Hume starts to look at best very puzzling and at worst very implausible.

However, it is not this puzzle that I am interested in solving here. This puzzle has been discussed at length already by many capable Hume scholars and defenders of the sceptical realist interpretation have had plenty to say about how to get around it (Read and Richman 2000). They have acknowledged the apparent tension between their view that Hume believes in causal powers and necessary connections in nature and Hume's declarations that talk of such powers and connections is talk that is 'absolutely without any meaning' (EHU 1.26, 74). But they have attempted to resolve this tension in a number of ways. They have argued, for example, that Hume's Copy Principle does not embody a theory of meaning at all but is instead a claim about the *origin* of our ideas (Beebee, 2006, 6; Kail 2007, 31-33). They have argued that this leaves Hume's claim that talk about necessity in nature is 'meaningless', open to stronger and weaker interpretations (Kail 2007, 34). They have argued for a weaker interpretation that says that while we do not have an *impression* of causal powers and necessary connection in nature and that talk of power and necessity is in this sense meaningless, this does not mean we cannot form *any* thought of such things at all. The New Humeans argue that Hume thinks that we can at least form the bare thought *that* causal powers and necessary connections in nature exist. So the putative problem for New Hume with which

---

connections in nature but that there are nonetheless unknown causal powers that ground the regularities in nature. However, this is a point of controversy among New Humeans that I wish to remain neutral on here, and I will refer to both causal powers and necessary connections in nature throughout this paper. See Beebee 2006, 193-201 for further discussion of the dispute between Wright and Strawson and an overview of the varieties of sceptical realism more generally.

we began is not insurmountable. But it is a distinct problem from the problem I want to discuss here.

In contrast with the first problem for the sceptical realist interpretation of Hume, the second problem is not about how to resolve the apparent tension between Hume's realist-sounding talk about causal powers and necessary connections in nature and his theory of meaning, rather, it's about how to resolve the apparent tension between Hume's realist metaphysics of causal powers and necessary connections and his empiricist epistemology.<sup>6</sup>

Here's how the second problem gets going. The sceptical realist interpretation of Hume attributes two metaphysical theses to him:

(NH1) Causal powers grounding necessary connections in nature exist.<sup>7</sup>

(NH2) Causal powers grounding necessary connections in nature are what make things happen.<sup>8</sup>

And it attributes an epistemological thesis to him.

(NH3) We have no knowledge of causal powers in nature nor of the necessary connections in nature which these powers ground.<sup>9</sup>

(NH1) says that there exist 'qualities' - properties – of mind-independent, external objects in nature. (NH2) says that these properties of mind-independent, external objects in nature are causal powers, they are what make things happen, they 'actuate the whole machine', as Hume puts it (EHU 7.8, 63). These causal powers also have a particular character: they are 'natural

---

<sup>6</sup> Craig (2000, 121) notes in passing that this second, epistemological problem for New Hume is also lurking in the background. But he offers no solution to it.

<sup>7</sup> See EHU 4.16, 33; EHU 4.20, 37; EHU 5.22, 55; THN 1.3.1.1, 69; THN 1.3.14.8, 159. Also noted, for example, by Strawson 1989, especially chapters 14-20, Broughton 1987, 235, Wright 1983, 129 and Richman 2000, 1.

<sup>8</sup> See EHU 4.16, 33, EHU 4.3, 42, EHU 5.22, 55, EHU 7.5, 63, THN 1.3.1.1, 69, THN 1.3.14.9, 159. Compare Strawson 2000, 35.

<sup>9</sup> See EHU 4.12, 30, EHU 4.3, 42, EHU 7.5, 63, EHU 7.13, 66, THN 1.2.5.25, 64.

and physical causes' (THN 2.1.1.1, 275).<sup>10</sup> (NH3) is the epistemological crunch. New Humeans claim that Hume thinks we do not know the causal powers of external objects in nature. They point to passages like this:

Nature...afforded us only the knowledge of a few superficial qualities of objects; while she conceals from us those powers and principles on which the influence of these objects entirely depends. (EHU 4.16, 33)

But now putting these three theses together seems to yield a problematic result. The epistemological thesis seems to have two corollaries as its upshot.

(C1) We cannot know that causal powers grounding necessary connections in nature exist.

(C2) We cannot know that causal powers grounding necessary connections in nature are what make things happen.

That is, we cannot know (NH1) and (NH2) are true. It seems the story that New Hume wishes to tell us cannot even begin to be told. The New Hume interpretation seems to make Hume's philosophical position self-undermining or dialectically unstable by his own empiricist lights.

## 2. **Three sources of justification and knowledge and one variety of ignorance.**

Hume thinks that there are different varieties of justification and knowledge and that they depend on the source from which they come.<sup>11</sup> In this section, I'll look at three sources of justification and knowledge that Hume discusses and the variety of justification and knowledge they yield. The first source of knowledge is what Hume calls 'the senses', the second is what he calls 'intuition', and the third is what he calls 'demonstration'. The variety of justification

---

<sup>10</sup> Hume wants to rule out any super-natural causal efficacy such as causal power bestowed on or super-added to objects by any deity, a view Craig notes (1987, 66-7; 2000, 113) was held by Malebranche.

<sup>11</sup> I'm assuming that Hume, like many other philosophers pre-Gettier, thought that having a justified true belief would amount to having knowledge.

these three sources yield is internalist in character: the subject is directly aware of the justification for her beliefs and it is the direct awareness of the justification that does the justificatory work. Hume calls such internalist knowledge ‘understanding’.

Hume thinks that the senses yield such knowledge of impressions. Impressions are mental objects. They are the genuine and direct objects of a person’s acquaintance composing her purely subjective, experiential world. What’s more, he thinks that our senses put us in a remarkable epistemic position vis-à-vis our impressions: our senses reveal our impressions so that they are ‘so clear and evident, that they admit of no controversy’ (THN 1.2.3.1, 33, (THN Abstract, 648, THN 1.2.1.7, 72-3). Impressions provide the justificatory foundation for our beliefs about our immediate experience and our grasp on the justification for such beliefs is internalist in character: we are directly aware of the justification for such beliefs.

Now take intuition and demonstrative reasoning. Hume thinks that there are some relations of ideas that we come to know through intuition and others that we come to know through demonstrative reasoning. He thinks that we either immediately *intuit* these at first sight, or *demonstrate* them by making explicit further relations internal to ideas we intuit. They include resemblance, contrariety, degrees in quality, and proportion in quantity and number. Hume thinks our grasp on the justification for beliefs about the first three of these relations of ideas is internalist in character: we are directly aware of the justification for such beliefs so that our knowledge of them is ‘comprehended in an instant’, ‘discoverable at first sight’, ‘strikes the eye, or rather the mind and seldom requires a second examination’ (THN 1.3.1.2, 70). For example, if I have two equilateral triangles before my mind, I just immediately ‘see’ or intuit that they resemble each other and this immediate ‘seeing’ justifies my belief that they resemble each other. Relations of proportion in quantity and number, however, are not known immediately like this. Our justification for beliefs about relations of proportion and number is also internalist in character but in a slightly different way from the way it is with regards to the first three relations, but it is in the end based on our more basic beliefs about the relations we immediately intuit. We start with the relations that we immediately intuit and then move to new beliefs about these relations by the carrying out of steps of reasoning that intellectually unpack and uncover objective connections or relations contained in them. Hume thinks that we are directly aware of each step made from belief to belief and that this process extends our

knowledge of the relations that we initially intuit ‘without any possibility of error’ (THN 1.3.1.5, 71) to yield new beliefs and knowledge which preserves ‘a perfect exactness and certainty’ (THN 1.3.1.5, 71; THN Abstract, 648), knowledge which is ‘certain’ and ‘infallible’ (THN 1.3.3.2, 79). Intuition and demonstration provide a justificatory foundation for our beliefs about the relations among ideas discussed above that is internalist in character: the subject has direct and complete awareness of these foundations.

However, according to Hume, neither the senses, nor intuition, nor demonstration yield knowledge of things outside the mind: they can do nothing to furnish us with knowledge of the future, of past events I have not myself experienced, of what’s going on now outside the room I am working in, or generally of ‘matters of fact and existence’, as Hume puts it. Sceptical realists understand Hume as thinking that causal powers and necessary connections are among the matters of fact and existence of which the senses, intuition and demonstration are incapable of giving us knowledge. They read him as driving an epistemological wedge between the properties that our impressions have on the one hand, and properties of objects in nature on the other. And indeed, Hume repeatedly tells us that mind-independent external objects in nature are *different* from impressions, the direct, mental objects of a person’s experience and that

the senses are the only inlets through which these images [i.e. perceptions] are conveyed, without being able to produce any immediate intercourse between the mind and the object. (EHU 12.8, 152)

Sceptical realists tell us that Hume thinks that there is a property (or properties) of external objects that our sense impressions cannot reveal to us. The kind of textual evidence they cite for this view is that Hume says that such a property (or properties) ‘never discovers itself in any of the *sensible* qualities of body’ and is therefore ‘entirely concealed from us’ (EHU 7.8, 63-4). Their angle on Hume is that he thinks that causal powers and necessary connections in nature exist but remain ‘secret’, ‘hidden’ from us, remaining, as Hume puts it, ‘totally shut up from human curiosity and enquiry’ (EHU 4.12, 30).

Before I move on, I want to say something further about the nature of Hume’s scepticism as the sceptical realist sees it. The sceptical realist does not see Hume as a destructive sceptic trying to undercut any justification we might have thought we had for our beliefs about the

way the world is. The sceptical realist simply thinks that Hume believes the scope of human reasoning to be narrower than philosophers of the early modern period previously thought but not so narrow as to result in such destructive scepticism. Hume is attacking an overly inflated view of our intellectual capacities but he's not out to destroy our knowledge completely. Edward Craig's book *The Mind of God and The Works of Man* (1987) paints a picture of this overly inflated view of our intellectual capacities: intellectual life in the early modern period was in the grip of what he calls 'The Image of God' doctrine. This doctrine, a background assumption in much philosophical and theological thinking at the time, held that man is made in God's image, and that although human beings are far less perfect than God, human minds and God's mind are the same kinds of thing. Human beings come closest to resembling God in their capacity for *a priori* knowledge: they seem to know mathematical and logical truths independently of experience and knowledge of these areas seems certain and infallible. It was also assumed that we could have such knowledge of the causal structure of the world. The Image of God doctrine embodied, as Craig points out, an epistemological assumption too, an assumption he labels 'The Insight Ideal'. The Insight Ideal assumed that the universe is, in principle, intelligible: God in his goodness endowed human beings with faculties that enable them, in principle, to gain knowledge of the world he created for them. In this intellectual climate, Craig argues, it was totally taken for granted that 'the universe was in principle intellectually transparent, even though quantitative considerations put complete insight beyond human grasp' (Craig 1987, 38).

Craig's persuasive history of the early modern period reads Hume as shattering the Image of God doctrine and its attendant epistemological assumption, The Insight Ideal, as it applies to causation. Before Hume, many philosophers assumed that human beings could, in principle, have *a priori* knowledge about the causal structure of the world. Against this, Hume's thinks that the scope of human reasoning is quite narrow (EHU 4.12, 30), (EHU 7.2, 61), (THN 7.17, 68): we don't have *a priori* knowledge of the causal structure of the world and the universe is not, even in principle, intellectually transparent. Human beings cannot properly pick up on properties of external objects with the specific kind of sensory mechanism with which they happen to be endowed. Our limited human sense perception only picks up on causal powers and necessary connections insofar as the senses receive impressions of regularity and constant conjunction. In this paper, I'll call this thesis about the narrowness of

the scope of human reasoning *Humility* rather than scepticism to distinguish it from the more destructive scepticism I spoke of earlier. Humility narrows the scope of human reasoning but, as we shall see, it does not destroy its epistemic foundation completely. The next two sections aim to show that New Hume's claim that there are necessary connections and causal powers in nature that we cannot know is dialectically stable and can be understood as being so in a way that squares well with what Hume says in the *Treatise* and in the first *Enquiry*.

### **3. A fourth source of knowledge and a mechanism to avoid total ignorance**

This section argues that there is a fourth source of knowledge to be found in Hume's texts. To defend this claim I examine what Hume says about knowledge in Sections 4 and 5 of the first *Enquiry*. I draw on the suggestion made by Dauer (1980), Craig (1987, 81) and Loeb (2006) that there is an externalist dimension to Hume's epistemology that is often overlooked. Externalism is the view that a subject's belief can be justified even if the subject is not directly aware of the justification for her belief. More specifically, I argue that Hume is working with a *reliabilist* conception of justification and that this can make sense of New Hume's claim that there are causal powers and necessary connections in nature that we cannot know.<sup>12</sup> To this end, we shall need to understand Hume's views about justification and knowledge of things beyond the mind more generally. Just what Hume is up to in those passages where he discusses our beliefs about things beyond the mind is not at all straightforward so it will help to first clear away some standard misconceptions about what he is doing. I shall begin by looking at Hume's remarks about causal reasoning (reasoning from causes to effects) and those remarks sometimes thought to be Hume's formulation of the problem of induction, in order to clear away the misconception that he thinks that none of our beliefs about things beyond the mind are justified and to make space for an externalist-reliabilist reading of how Hume thinks our beliefs acquire justification.

---

<sup>12</sup> Dauer's work differs from mine in that he concentrates purely on Hume's remarks on induction. I apply Dauer's more general thought that there is an externalist aspect to Hume's epistemology in order to solve the problem for New Hume that I outlined earlier. In this paper I also go with Dauer's further thought that *reliabilism* is the way to flesh out Hume's externalism. But of course developing a proper function account or going adaptationist would also be options (Loeb, 2006). Space constrains me to focus on one option so I have chosen the reliabilist option.

The problem of induction is the problem of showing how inferences we frequently make from the observed to the unobserved are justified. To the extent that they are, we can have justified true beliefs and therefore knowledge of the unobserved; to the extent that they are not, we have no such beliefs and no such knowledge. A standard story about Hume on induction tells us that he is a destructive sceptic about such inductive inferences: his aim is to pull the rug out from under our belief that they are justified.<sup>13</sup> He is alleged to show that our belief that inductive inferences are justified presupposes that nature is uniform. He is alleged to show that no argument using demonstrative reasoning can prove this, and that no argument using probable reasoning could show it without begging the question — that is, without assuming that nature is uniform. And finally Hume is alleged to draw the argument's conclusion: we have no justification for belief in the uniformity principle and hence we have no justification for inductive inferences from the observed to the unobserved. Indeed, at first blush, there does seem to be textual evidence for this view. After all, Hume does write that there is 'no reason' to draw the inference from the observed to the unobserved (THN 1.3.6.12, 92), and that the inference is one with 'no just foundation' (THN 1.3.6.10, 91).<sup>14</sup>

However, the evidence against the image of Hume as a destructive sceptic has been steadily mounting over the last thirty years or so (Beauchamp and Mappes 1975, Winters 1979, Beauchamp and Rosenberg 1981, Arnold 1983 and Broughton 1983). Indeed, its effect has been devastating to the destructive sceptic interpretation and advocates of the latter among those working on Hume are now pretty thin on the ground.<sup>15</sup> Hume's project, his argumentative strategy and practice, as well as his explicit comments about causal reasoning and induction, all point towards the view that he thinks causal reasoning and induction are justified.<sup>16</sup> Given that

---

<sup>13</sup> This is Russell's (unfortunately) influential angle on Hume in *The Problems of Philosophy* (1912), a descendent of the Reid-Beattie interpretation which paints Hume as an arch, and destructive, sceptic.

<sup>14</sup> Compare THN 1.3.12.20, 139 as well as EHU 4.15, 32 and EHU 5.2, 41.

<sup>15</sup> Penelhum (1992) and Winkler (1999) are still holding out.

<sup>16</sup> See Loeb 2006 for a concise inventory of the evidence. Beebe (2006) argues that Hume is not even interested in the traditional problem of induction. She argues that he is interested in *causal reasoning* – reasoning from particular causes to effects. I suspect that Beebe is right but this is not a debate I can enter into here so I'll remain neutral on whether Hume is interested in causal reasoning or inductive inference (or both) and I'll speak of them interchangeably.

he is not a destructive sceptic, this leaves the field wide open for alternative readings of what Hume might be up to in those parts of the *Treatise* (THN 1.3.6.) and the first *Enquiry* (EHU 4-5) where he discusses causal reasoning and inductive inference and claims that that the inference from the observed to the unobserved is one with ‘no just foundation’. Figuring out what Hume is up to in these passages will help us to figure out what he thinks about the justification of beliefs about things outside the mind which in turn will help solve the puzzle for New Hume outlined at the beginning. So let’s start there.

Take Hume’s discussion in the first *Enquiry*. In Section 4, he claims that he is no sceptic but is very curious to learn the foundation of our conclusions from experience (EHU 4.16,33; EHU 4.21, 38).<sup>17</sup> Hume says (EHU 4.16, 33):

...we always presume, when we see like sensible qualities, that they have like secret powers, and expect that effects, similar to those which we have experienced, will follow from them...Now this is a process of the mind or thought, of which I would willingly know the foundation.

Here Hume notes that in our everyday reasoning we make the following assumption when making inferences from the past to the future:

*Uniformity*: Nature is uniform in that the way the world will be in the future resembles the way it is now or has been in the past.

He then issues a challenge to those who think that *Uniformity* is based on reason:

... there is here a consequence drawn by the mind; ... there is a certain step taken; a process of thought, and an inference, which wants to be explained ... *But if you insist that the inference is made by a chain of reasoning, I desire you to produce that reasoning.* (EHU 4.16, 34; my emphasis)

---

<sup>17</sup> That is, he is no *destructive* sceptic.

This is a challenge to those who think that reasoning from causes to effects is *a priori*. If that were the case, Hume is saying, then inferences from causes to effects would be produced by an argument the bases of whose premises lay on direct awareness of one of the processes of the understanding we saw earlier — the senses, intuition or demonstration. But they're not:

... you must confess that the inference is not intuitive; neither is it demonstrative: Of what nature is it, then? To say that it is experimental, is begging the question. (EHU 4.21,37)<sup>18</sup>

Hume thinks the challenge cannot be met in a way that does not beg the question: it cannot be met in a way that does not deploy the Uniformity assumption itself. He concludes:

...even after we have experience of the operations of cause and effect, our conclusions from that experience are *not* founded on reasoning, or any process of the understanding. (EHU 4.15, 32)

But what exactly *is* Hume's conclusion here? The first way to read these comments, the last in particular, understands Hume to be engaged in a *purely epistemological* project in which he is a destructive sceptic: none of the inferences we make from causes to effects are justified and that is what is meant by phrases like 'our conclusions from that experience are *not* founded on reasoning'. But I'm setting that option aside: the evidence against it as a reading of Hume is too great. A second way to read Hume's comments above is as a *purely genetic* claim about *the way we acquire* causal beliefs, directed against those who argue causal reasoning is produced by processes of the understanding like the senses, intuition or demonstration. On this view, Hume is only interested in *describing* the way we acquire our beliefs; he's not interested in a normative epistemological project at all (Garrett 1997, Chapter 4; Owen 1999, 6; Beebee 2006, 11). This is an interesting view, and there is much to be said for it, but space constrains me to

---

<sup>18</sup> Experimental reasoning is inductive reasoning. It involves the use of inference from the observed to the unobserved and that is why it cannot be appealed to in the course of justifying our conclusions from the observed to the unobserved.

set it aside here.<sup>19</sup> The third view says that Hume's project is both genetic *and* epistemological: he's interested in the mental mechanisms that generate belief about matters of fact, he thinks that causal reasoning (custom and habit) is one way in which we acquire such beliefs, and he *also* thinks that some ways of acquiring beliefs about the world are epistemically better than others.<sup>20</sup> My claim here will be that reliable mechanisms of belief formation produce beliefs about the world that Hume thinks are justified and that he thinks that this justification is externalist in character. Later, I'll argue that Hume thinks that when it is properly understood, custom is a reliable method of belief formation and that it can produce justified true beliefs about 'matters of fact and existence', and specifically, about the existence of causal powers grounding necessary connections in nature.

To understand Hume's views on justification let's turn to the first *Enquiry*. In Section 5, Hume provides what he calls a 'sceptical solution' to the doubts raised in Section 4. The key to understanding Hume's view about how causal reasoning and inductive inferences are justified, and the key to understanding his views about how beliefs about matters of fact in general are justified, is to look at the shape of the solution he provides to his doubts. The solution Hume provides — in order to be viewed as a *solution* — suggests that he is working with something very like an *externalist* picture of justification: he thinks beliefs about things beyond the mind can be justified even if we are not directly aware of the justification.<sup>21</sup> In the final section, I will show how Hume's epistemological externalism provides the epistemic foundation New Humeans need to make sense of their sceptical realist interpretation of Hume.

Here's how Hume begins Section 5:

---

<sup>19</sup> Loeb (2006) gives a battery of arguments against the view that Hume's project is purely genetic in character.

<sup>20</sup> That Hume has a normative theory of belief formation is also well substantiated by a section of the *Treatise*, 'Rules by which to judge of causes and effects' (THN, 1.3.15).

<sup>21</sup> Compare Dauer 1980. And Hume is definitely concerned with justification as EHU 12.10,152 (not cited by Dauer) indicates. There, Hume is puzzled about how someone could 'justify [a] pretended philosophical system, by a chain of clear and convincing argument'. This, Hume claims, 'exceeds the power of all human capacity'. But again, the point is against an internalist conception of justification requiring a direct cognitive grasp on the justification for a belief before that belief is justified.

Though we should conclude, for instance, as in the foregoing section, that, in all reasoning from experience, there is a step taken by the mind which is *not supported by any argument* or process of the understanding; there is *no danger* that these reasonings, on which almost all knowledge depends, *will ever be affected* by such a discovery. (EHU 5.2, 41; my emphases)

First, Hume notes there is a step taken by the mind in reasoning from causes to effects which does not get epistemic support from ‘any argument or process of understanding’. Call this step a *non-intellectual* step. Secondly, Hume thinks such non-intellectual steps are epistemically innocuous: they do not do epistemic harm to the reasoning upon which our knowledge is founded. There is no danger that our knowledge ‘will ever be affected by such a discovery’ (EHU 5.2, 41). But how can a mental process, which is not the result a process of the understanding, provide justification for our beliefs and a secure foundation for our knowledge?

If Hume’s solution to the sceptical doubts of Section 4 is to be a *solution*, he must think that the conclusions of the inferences we draw from causes to effects have an epistemic foundation alright, but that this foundation is not to be characterised in terms of the subject’s direct awareness or cognitive grasp of ‘any argument or process of the understanding’ (EHU 5.2, 41). So does it make sense to say that our causal reasoning has epistemic foundation not involving the direct awareness of some argument or process of the understanding? And, more to the point, does it make sense to read *Hume* as saying this? Contemporary philosophers and historians of philosophy have argued *Yes* on both counts.<sup>22</sup> One contemporary advocate of the externalist conception of justification puts it like this:

In at least one popular interpretation of the traditional analysis, a knower must be able to justify or give evidence for any proposition he knows. For *S* to know *p* at *t*, *S* must be able, at *t*, to *state* his justification for believing *p*, or his grounds for *p*. My analysis makes no such requirement, and the absence of this requirement enables me to account

---

<sup>22</sup> For the view about Hume see Dauer (1980). For the contemporary view see Goldman (1967) and (1976).

for cases of knowledge that would be wrongly be excluded by the traditional analysis.  
(Goldman 1967, 370)<sup>23</sup>

Goldman's alternative view of justification is externalist in character: the subject is not required to have cognitive access to the justification to count as a knower. Specifically, it's a reliabilist view of justification.<sup>24</sup> Goldman's characterisation of reliabilism shifts from paper to paper, so I will present a simplified version of the reliabilist position generally, but one adequate for my purposes. The reliabilist conception of justification says (roughly) that a subject can know a proposition *p* if:

1. *p* is true
2. the subject believes *p*
3. the belief that *p* is justified by being the result of some reliable mechanism of belief formation.

A subject — call him Bruce — is justified in holding the beliefs he infers from experience when those beliefs are formed by a mechanism which is in fact highly reliable. A mechanism is highly reliable if it nearly always results in the formation of true beliefs about the world. And for Bruce to have *justified* true beliefs about the world, all that's required is *that* there is such a reliable mechanism at work; it's not required that he also be *aware* that the mechanism

---

<sup>23</sup>Goldman suggests here that justification is not necessary for knowledge. He tells us his analysis 'flies in the face of a well-established tradition in epistemology, the view that epistemological questions are questions of logic or justification, not causal or genetic questions'. (1967, 372) But as the main passage above tells us, this simply means that the knower does not have to be able to *explicitly state* or be able to *give an argument* for any proposition she or he knows. This does not mean that justification is not necessary for knowledge; it just means that a certain conception of justification is not necessary for knowledge. In later work (1979, 1) Goldman clarifies his position. He tells us that justification is necessary for knowing but that he is working with an externalist conception of justification, quite different from the 'traditional' internalist conception in the face of which he flew in his 1967 piece: it is not necessary for a knower to be able to state the justification explicitly to know something; there may be a justification for her belief which is not cognitively accessible to her.

<sup>24</sup>Goldman 1967 claims that it yields a causal theory of knowing. Goldman 1976 drops the idea that the reliable mechanism in question must be a *causal* mechanism. But it is still supposed to yield knowledge.

is reliable. Likewise, Hume's point (EHU 5.2, 41) is not that beliefs inferred from experience are without justification. Instead, he is rebuking the internalist demand that the epistemic security of such beliefs requires being aware of some justification for them cognitively grasped through direct awareness of some 'process of argument' (EHU 4.21, 38). If this is our demand, Hume thinks, it cannot be met. In the next section, I will argue that Hume thinks that the principle of custom can yield justification for beliefs but that he doesn't think it necessary for the subject to be aware of this justification in order for it to perform its justificatory task. In the final section, I shall apply this externalist dimension of Hume's epistemology to solve the puzzle for New Hume outlined at the beginning.

#### 4. Hume's Reliable Mechanism: The Principle of Custom

Hume thinks that custom or habit is a psychological mechanism generating beliefs about the world: the past constant conjunction of certain kinds of impressions with other kinds of impressions leads them to become associated in the imagination so that when I'm again presented with impressions of the first kind I acquire the belief that impressions of the second kind will follow. I now need to make the case that Hume thinks that custom is a *reliable* mechanism of belief formation yielding justified true beliefs about (and so knowledge of) necessary connections grounded by causal powers in nature. I'll argue that Hume thinks that custom forms beliefs that can track the existence of such things. But that is not to say that the content of the belief in the existence of necessary connections grounded by causal powers is the direct result of the unbiased *detection* of these things or of some responsiveness to evidence for them. The *content* of the belief is the result of a projection of a mental state — specifically, a custom-induced transition we feel *forced* to make from the thought of some kinds of object to the thought of other kinds of object.<sup>25</sup> I'll show how custom plays a crucial role in the *formation* of this mental state. However, the fact that such mental states are projections doesn't make them false. If there exist necessary connections grounded by causal powers in nature as the New Humean claims Hume thinks, then the projected belief is a *true*

---

<sup>25</sup> I am taking the content of the belief here to be something like 'As necessitate Bs'. This necessitation relation is one that is more than a mere regularity: it is a *causal* relation. What the subject is sensitive to is more than the regularity. Once the belief spreads onto the world there can then be a reliable mechanism going from the causal relation in the world to beliefs about the causal relation.

belief.<sup>26</sup> Finally, I'll argue that the belief in the existence of necessary connections grounded by causal powers can also be *justified* whether or not the subject is aware that custom is a reliable mechanism of belief-formation. Custom is a psychological mechanism of belief formation that regularly and reliably yields correct inferences, and on the strength of this reliability, it yields beliefs **about causal powers and necessary connection in nature that** are justified whether or not the subject is aware of its reliability.

Hume is adamant that custom does not operate *directly* on impressions of causal powers and necessary connections in nature: we don't experience them so there are no such impressions to be had. Instead, custom sets up a habit of expecting observed regularities to continue. And although the *content* of the belief in the existence of necessary connections grounded by causal powers is the result of a *projection* of a mental state — the transition we feel forced to make from the thought of some kinds of object to the thought of other kinds of object — this does not mean that such beliefs are false. If there exist necessary connections grounded by causal powers, such beliefs may be true and there may be, as Hume puts it, a harmony between 'the course of nature and the succession of our ideas' (EHU 5.21, 54-5).<sup>27</sup> I'll now take a closer look at the role custom plays in bringing such a harmony about and how, once the projected belief spreads itself onto the world, custom is a reliable mechanism forming beliefs about necessary connections grounded by causal powers in nature.

---

<sup>26</sup> You might think that for Hume to argue for the view that custom is reliable, he needs some basis for thinking that it leads to true beliefs in most cases. And you might wonder what grounds Hume could have for regarding custom as leading to true beliefs (and so regard it as reliable) unless he has some criterion of true beliefs other than their being produced by a reliable mechanism. This is a general puzzle for externalist readings of Hume's work but it's an issue much wider than the particular one I am addressing here. This is not the place to settle what the general features of Hume's externalism are.

<sup>27</sup> Hume sometimes calls beliefs about matters of fact and existence 'fictions'. This might suggest to some that the beliefs in question are false, contrary to what I want to say. But just because a belief is a fiction does not mean that it is false. This view is supported by the use of the word 'fiction' in the eighteenth century. The Shorter O.E.D. (1973) tells us that in the eighteenth century a fiction was thought to be 'the action or product of fashioning or imitating'. It wasn't automatically taken to be false and this fits with Hume's own usage. When describing how we come to our beliefs in matters of fact, he says that we draw on a 'fiction' of necessary connection, an idea not found in experience but created by the imagination (THN, Abstract, 662).

For Hume's principle of custom to do its work in setting up habits of thought and expectation, the mind needs to possess a certain character: it must be capable of being conditioned. If not, no amount of past experience of the world would produce conditioned behaviour and conditioned expectations. Following Wolff (1968), let's use the term 'disposition' to describe the fact that something is prone to act or react in certain ways under certain conditions (Wolff 1968, 106). And let's use the term 'propensity' to describe the fact that something is prone to develop certain dispositions under certain conditions. Wolff then characterizes Hume's picture of the mind like this:

The human mind has a number of innate propensities, or 'dispositions to form dispositions'. When the mind is presented with perceptions conjoined in certain ways, its propensities are activated and it develops dispositions. These dispositions determine the mind to reproduce in imagination certain impressions when it experiences certain others. (Wolff 1968, 107)

One such innate propensity is:

The propensity to develop, under the stimulus of repeated conjunction of resembling pairs of objects, a disposition to reproduce the idea of the one when presented with the impression of the other. (Wolff in Chappell (ed.) 1968,127)

Custom forms certain habits of association via the associative principles of resemblance, contiguity and causation. As certain kinds of objects appear again and again in certain relations to other kinds of objects, they become associated or connected in the imagination, so that when Bruce sees clouds, the disposition created by the past conjunction of clouds and rain determines his mind to reproduce the idea of rain in such a way that he feels *forced* to think of rain upon seeing clouds. This feeling of being forced to think of certain kinds of things on being presented with other kinds of things, this feeling of necessary connection among *ideas*, is then projected onto the world so that we believe that there are necessary connections grounded

by causal powers in *nature*.<sup>28</sup> So custom is the *source* of our belief in the existence of necessary connections grounded by causal powers in nature.

Whether or not this belief is true depends on how nature is: it depends on whether in fact there are necessary connections grounded by causal powers in nature. The sceptical realist interpretation of Hume claims that Hume thinks that there are necessary connections grounded by causal powers in nature. I am granting sceptical realists that assumption here in order to show how this does not commit Hume to a philosophical view that is dialectically unstable or self-undermining by his own lights. If there are such powers and connections in nature then the belief them can be true. And there is textual evidence suggesting that Hume does indeed think this to be the case. He writes:

Here, then, is a kind of pre-established harmony between the course of nature and the succession of our ideas; and though the powers and forces, by which the former is governed, *be wholly unknown to us*; yet our thoughts and conceptions have still, we find, gone on in the same train with the other works of nature. *Custom is that principle, by which this correspondence has been effected*;...Had not the presence of an object *instantly* excited the idea of those objects, commonly conjoined with it, *all our knowledge must have been limited* to the narrow sphere of our memory and senses; and we should never have been able to adjust means to ends ... (EHU 5.21, 54-5; my emphases)

Custom is a psychological mechanism that plays a crucial role in the *formation* of the belief that there exist necessary connections grounded by causal powers in nature. Given that they do indeed exist, as sceptical realists argue Hume thinks, custom can bring about the harmony between the course of nature and the succession of our ideas.

Custom also plays a crucial role in the *justification* of the belief that there exist necessary connections grounded by causal powers in nature. This is not to say that this belief acquires

---

<sup>28</sup> Kail 2007 details the nature and role of projection in Hume.

justification simply through repetition, habituation and custom.<sup>29</sup> The point is rather that this belief acquires justification when formed by a mechanism *which is in fact highly reliable*, and the psychological mechanism of custom *is* a mechanism which is in fact highly reliable: custom regularly and reliably generates true beliefs and correct inferences in the actual world. When Bruce sees clouds, the disposition created by the past conjunction of clouds and rain determines him to reproduce the idea of rain in such a way that he feels *forced* to infer the idea of rain from the idea of clouds. He makes this kind of inference regularly and he's usually correct. One Tuesday afternoon he makes the inference, expecting rain on seeing clouds. It rains, so his belief (his expectation) is true and the inference is correct. It's justified, having been formed by custom, a reliable psychological mechanism of belief formation regularly and reliably yielding correct inferences. Custom thus yields justified true beliefs (and, in this sense, it yields knowledge) about the world. What's more, Hume frequently uses language that suggests that he thinks that custom leads us to epistemic success. At THN 1.3.8.13, 103, he tells us that a person who stops before a river '*forsees* the consequences of this proceeding forward', and that '*his knowledge* of these consequences is convey'd to him by past experience'.<sup>30</sup> At EHU 4.0, 36, Hume speaks of the 'principle of human nature (custom), which gives mighty authority to experience' and speaks of it as a 'great guide of human life'. Later, at EHU 5.2, 41, in a context explicitly epistemological in tone, Hume again suggests that the principle of custom has positive epistemic weight, declaring that 'Nature will always maintain her rights and prevail in the end over any abstract reasoning whatsoever' and speaks of the natural principle (custom) as having 'equal weight and authority' with reason.

Custom does not have to be reliable mechanism of belief formation in every possible world in order for it to be a reliable mechanism in the actual world. Its reliability in the actual world is contingent. This can be illustrated by comparing Hume's views on necessary connection and causal power with those of Malebranche who gives an account of the effect of experience and repetition on the mind very similar to Hume's (Malebranche 1997). In

---

<sup>29</sup> Indeed, Hume himself is quite disparaging of the epistemic credentials of beliefs acquired through rote learning ('education') and indoctrination (THN 1.3.10. 1, 118). The operation of custom only confers justification on beliefs insofar as it is reliable. In the cases of rote learning and indoctrination custom is not reliable.

<sup>30</sup> My emphases. Loeb 2006 also makes this point.

particular, Malebranche thinks that custom and repetition usually cause people to believe in the existence of necessary connections and causal powers in nature; but for him, that belief, far from being true, is little better than idolatry, refusing to acknowledge the power of the only true cause, God. Now suppose that we are in a Malebranchian universe where the phenomenal regularities of nature are just the same but where there are no causal powers or necessary connections in nature and all events are caused by the divine will alone. Natural regularities would appear exactly the same in a Malebranchian universe as they would in a Humean universe where there are unknown causal powers and necessary connections in nature. People would have the same expectations, even the same beliefs (e.g. that the regularities they experience are caused by the operation of secret powers and necessary connections in nature), and they would behave in the same ways in the two universes.<sup>31</sup> But in the Malebranchian universe, custom would not be a reliable source of true beliefs about causal powers and necessary connections in nature. However, one of the many points Hume wants to make, of course, is that we are not in a God-driven Malebranchian universe. And the New Humean's point is that Hume thinks that the actual world *is* a universe with causal powers and necessary connections. I have simply shown that in *that* kind of universe custom is a reliable mechanism of belief formation that regularly and reliably yields true beliefs and correct inferences. That custom is *contingently* reliable is no argument against its reliability in such a universe and so is no argument against an externalist reading of Hume's epistemology of causal powers and necessary connections in nature understanding custom to justify beliefs about their existence.

Hume is rejecting a certain internalist conception of justification dominant at the time he was writing. That conception of justification was one where the subject was required to be directly aware of the justification for her belief about some subject matter in order for her to count as a knower. Hume shows the limitations of this internalist conception of justification and shows that it cannot justify the inductive inferences so central to our practical lives. In the process of breaking away from this internalist conception of justification, Hume replaces it with a conception of justification which does not require the subject to have such a direct cognitive grasp on the justification for their belief to count as a knower: he thinks that custom yields justification for beliefs but doesn't think it necessary for the subject to be aware of the

---

<sup>31</sup> At least, people in the Malebranchian universe would have the same beliefs as those in the Humean universe prior to being 'enlightened' by Malebranche.

justification in order for it to perform its justificatory task. I have extended this idea, arguing that Hume thinks that we can have justified true beliefs that there are causal powers and necessary connections in nature, even we are not directly aware of the justification for this belief. If the world is the way custom leads us to believe it is then our beliefs are true. What's more, the beliefs formed by custom are regularly and reliably true. Once the belief spreads onto the world there can then be a reliable mechanism going from causal powers and necessary connections in nature to beliefs about causal powers and necessary connections in nature. So custom is in fact a reliable mechanism and this reliability justifies the belief that there are causal powers and necessary connections in nature even if the subject with that belief is not directly aware of the mechanism forming and justifying it.<sup>32</sup> This of course will be music to the ears of those arguing that Hume is no destructive sceptic: once you appreciate the virtues of Hume's externalism, you become less convinced that he is a destructive sceptic. On my view, Hume is simply rejecting an overly intellectualist, internalist model of justification and knowledge requiring the subject to be directly aware of the justification for her beliefs in order to have knowledge. This view also gives a good explanation of the epistemic achievements of children and non-human animals, something Hume never disputes. According to this externalist-reliabilist reading of Hume's epistemology of matters of fact and existence, animals and children do not have to be able to articulate or be aware of the justification for their beliefs in order for their beliefs to be justified. Custom operates just the same in each case (EHU 4.23,39; THN 1.3.16.3-5, 176-7). The minds of human beings are much less like gods and angels and much more like animals and insects than many philosophers of the early modern period were willing to admit.

## **5. Humean Humility**

This gives the New Humean the pieces to put together a solution to the puzzle I outlined at the beginning. Remember, there were two metaphysical theses attributed to New Hume:

(NH1) Causal powers grounding necessary connections in nature exist.

---

<sup>32</sup> The question 'How does the subject know what mechanisms are reliable?' misses the point. The externalist line on justification is that once the belief is true and reliable, justification (and, to this extent, knowledge) follows. For a contemporary defence of this kind of response to the question just posed see Mellor 1991.

(NH2) Causal powers grounding necessary connections in nature are what make things happen.

And there was an epistemological thesis attributed to him:

(NH3) We have no knowledge of causal powers in nature nor of the necessary connections in nature which these powers ground.

It looked as if the epistemological thesis had two corollaries as its upshot:

(C1) We cannot know that causal powers grounding necessary connections in nature exist.

(C2) We cannot know that causal powers grounding necessary connections in nature are what make things happen.

And we thought that this meant that we cannot know whether (NH1) and (NH2) are true. This made New Hume's position look self-undermining or dialectically unstable by his own empiricist lights.

However, the conception of justification and knowledge required to assert (NH1) and (NH2) is quite different from the conception of justification and knowledge at stake in (NH3). The one at stake in (NH3) is *internalist* in character, requiring the subject to be directly aware of the justification for her beliefs in order for those beliefs to be justified and count as knowledge. Hume's Humility thesis leads him to deny that we have such internalist knowledge of causal powers and necessary connections in nature, and he replaces it with an externalist conception of knowledge. Once Hume has his replacement externalist conception of justification and knowledge in play (NH1) and (NH2) can be asserted without worry. The Humility thesis does not say that *all* varieties of knowledge of causal powers and necessary connections in nature are impossible. (C1) and (C2) only threaten (NH1) and (NH2) if we fail to distinguish knowledge internalistically conceived and knowledge externalistically

conceived. Once we distinguish these, New Hume can happily assert (NH1) and (NH2) at the same time as asserting (NH3). (NH3) does not undermine (NH1) and (NH2). Puzzle resolved.

My aim here was to make sense of the New Humean's claim that there are causal powers and necessary connections in nature that we cannot know in a way that squares well with Hume's texts. To this end, I granted New Humeans the claim that Hume believes that there are such powers and connections in nature. I showed that *if* causal powers and necessary connections exist, and if, as I have argued, Hume can indeed be read as a reliabilist about the justification of our beliefs about causal powers and necessary connections in nature, then there is a sense in which we can read him as saying that we do know that there are causal powers and necessary connections in nature. New Hume's unknowable causal powers and necessary connections are only 'unknowable' and 'secret' and 'hidden' in the sense that the subject is not directly aware of the justification for believing them to exist. But I have shown how the subject can have justification and knowledge that they exist when her belief that they exist is formed by Hume's reliable mechanism, custom. The externalist justification and knowledge yielded by custom is not as comprehensive as the internalist justification and knowledge yielded by the processes of the understanding but it is some kind of justification and knowledge and that in itself is not to be sneezed at. At any rate, it's enough to solve the puzzle I outlined at the beginning. Whether or not Old Hume or New Hume is the true Hume, New Hume's position is dialectically stable.<sup>33</sup>

## **Bibliography**

THN: Hume, D. 1739-40. *A Treatise of Human Nature*, 2nd edition. L.A. Selby-Bigge and P.H. Nidditch (Eds.), Oxford: Clarendon Press, 1975.

---

<sup>33</sup> Extra special thanks are due to Peter Kail for many helpful discussions about Hume both during and after the original drafting of this paper, and to the editors, Helen Beebee and Markus Schrenk, for their patience. Thanks also to Rae Langton, Daniel Stoljar, Nico Silins, Samir Okasha, Tyler Doggett, Alison Simmons, Jim O' Shea and audiences at the 2007 Australasian Association of Philosophy conference and at the University of Geneva for helpful comments on an earlier draft of this paper.

EHU: Hume, D. 1748. *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, 3rd edition. L.A. Selby-Bigge and P.H. Nidditch (Eds.), Oxford: Clarendon Press, 1978.

Ayers, M. 1997 Natures and Laws from Descartes to Hume. In: Rogers, J. and Tomaselli, S. (eds.). *The Philosophical Canon in the Seventeenth and Eighteenth Centuries: Essays in Honour of John W. Yolton*, 83-101. Rochester: University of Rochester Press.

Beebe, H. 2006. *Hume on Causation*. Routledge.

Bennett, J. 1971. *Locke, Berkeley, Hume: Central Themes*. Oxford: Clarendon Press.

Arnold, N.S. 1983. Hume's skepticism about inductive inference. *Journal of the History of Philosophy*, 21, 31-55

Beauchamp, T.L., & Mappes, T.A. 1975. Is Hume really a sceptic about induction? *American Philosophical Quarterly*, 12, 119-129.

Beauchamp, T.L. & Rosenberg, A. 1981. *Hume and the problem of causation*. New York: Oxford UP.

Blackburn, S. 1990. Hume and Thick Connexions. *Philosophy and Phenomenological Research* 50 (supp): 237-50. Reprinted with a new postscript in Read and Richman 2000.

Broughton, J. 1983. Hume's scepticism about causal inferences. *Pacific Philosophical Quarterly*, 64, 3-18.

Broughton, J. 1987. Hume's ideas about necessary connection. *Hume Studies* 12, 217-44

Buckle, S. 2001. *Hume's Enlightenment Tract: the Unity and Purpose of An Enquiry concerning Human Understanding*. Oxford: Clarendon Press.

Costa, M. J. 1989. Hume and Causal Realism. *Australasian Journal of Philosophy* 67, 172-90.

Craig, E. J. 1987. *The Mind of God and the Works of Man*. Oxford: Clarendon Press.

Craig, E. J. 2000. Hume on Causality: Projectivist and Realist? in Read and Richman 2000, 113-121. London: Routledge.

Dauer, F. W. 1980. Hume's Skeptical Solution and the Causal Theory of Knowledge. *The Philosophical Review* 89, 357-378.

Garrett, D. 1997. *Cognition and Commitment in Hume's Philosophy*. Oxford: Oxford UP.

Goldman, A. 1967. A Causal Theory of Knowing. *Journal of Philosophy* 64, 357-372

Goldman, A. 1976. Discrimination and Perceptual Knowledge. *Journal of Philosophy* 73, 771-791.

Goldman, A. 1979. What is Justified Belief ? In: G. Pappas (ed.), *Justification and Knowledge*, Dordrecht: Reidel 1-23.

Kail, P. J. E. 2007. *Projection and Realism in Hume's Philosophy*. Oxford: Oxford UP.

Langton, R. 1998. *Kantian Humility: our ignorance of things in themselves*. Oxford: Clarendon Press.

Livingston, D. 1971. Hume on Ultimate Causation. *American Philosophical Quarterly* 8, 63-70.

Loeb, L. E, 2006. Psychology, epistemology and scepticism in Hume's argument about induction. *Synthese* 152, 321-338.

Mellor, D. H. 1991. The warrant of induction. In: *Matters of Metaphysics*, Cambridge: Cambridge UP, Chapter 15, 254-268.

Malebranche, N. 1997. *The Search After Truth*, trans. T. Lennon and P. Olscamp. Cambridge: Cambridge UP.

Onions, C.T. (ed.) 1973. *The Shorter Oxford English Dictionary*, Clarendon Press: Oxford.

Owen, D. 1999. *Hume's Reason*. Oxford: Oxford UP.

Penelhum, T. 1992. *David Hume: an introduction to his philosophical system*. West Lafayette, IN: Purdue UP.

Read, R. and Richman, K. A. (eds.) 2000. *The New Hume Debate*, Routledge: London and New York

Richman, K. 2000. Introduction. In Read and Richman 2000.

Russell, B. 1912. *The Problems of Philosophy*. London: Butterworth.

Strawson, G. 1989. *The Secret Connexion: Causation, Realism and David Hume*. Oxford: Clarendon Press.

Strawson, G. 2000. David Hume: objects and power in Read and Richman 2000.

Winkler, K. 1999. Hume's inductive skepticism. In M. Atherton (Ed.), *The empiricists: critical essays on Locke, Berkeley, and Hume* (pp. 229-252). Lanham, MD: Rowman & Littlefield.

Winkler, K. 2000. The New Hume. in Read and Richman 2000.

Winters, B. 1979. Hume on reason. *Hume Studies*, 5, 20-35.

Wolff, R.P. 1960. Hume's Theory of Mental Activity. In Chappell, V.C. (ed.) 1968. *Hume*. Doubleday, New York.

Wright, J. P. 1983. *The Sceptical Realism of David Hume* Manchester: Manchester UP.