

## HUME'S NEWTONIAN IMAGE OF SCIENCE

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**Abstract.** *While Hume never directly referred to himself as the “Newton of the moral sciences”, Newton’s influence on Hume’s development of the “moral science” as “experimental” is undeniable. Indeed, I will be arguing here, that the failure to appreciate the degree to which Hume’s own view of Newton influenced his thinking on the central questions of the moral sciences, has led to some significant misunderstandings of Hume’s most important contributions to the history of ideas*

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### I.

Hume’s first mature expression of his philosophy came in the form of a *Treatise* which he divided into three volumes or “Books”. Books I & II (*Of the Understanding & Of the Passions* respectively) were published together in January of 1739, followed by Book III (*Of Morals*) nearly two years later in November of 1740. From the outset Hume saw the views he was advancing in the *Treatise* to be quite different from those that had been previously put forward. In December of 1737 while completing the first two books of the *Treatise* Hume wrote to Henry Home noting: “my opinions are so new...that I could not propose, *by any abridgment*, to give my system an air of likelihood, or so much as make it intelligible (*ital. added*).” In February of 1739, a month after the publication of the first two volumes of the *Treatise*, Hume wrote again to Home noting, “My principles are also so remote from all the vulgar sentiments on the subject, that were they to take place, they would produce an almost total alteration in philosophy.”

Evidently, Hume took his views to be not only novel but a bit revolutionary. Contrary to some contemporary caricatures (which construe him as merely drawing out the skeptical consequences of the empiricism articulated by the likes of Locke and Berkeley) Hume did not see himself as simply building upon previously established metaphysical opinion but, rather, as engaged in a fundamental “alteration” of it.

Despite his earlier reluctance to abridge the thoughts of the first two books, in March of 1740, Hume made available the anonymous “An Abstract of a Book lately Published, entitled, *A Treatise of Human Nature & c.*” in which he sets out to “render” the first two books of the *Treatise* “more intelligible to ordinary capacities, *by abridging it (ital. added).*” In the preface to the *Abstract* Hume again notes that the views articulated in the *Treatise* are meant to be revolutionary claiming that, “were his philosophy received, we must alter from the foundation the greatest part of science.” Here again, Hume’s talk of “altering foundations”

suggests that he was not interested in merely establishing new claims based upon old premises.

Looking at some of Hume's broad characterizations of his own philosophy gives some indication of where we might begin to look for the putative revolutionary character of his thought. In the subtitle Hume provided for the *Treatise* he characterizes the work as, "an attempt to introduce *the experimental method* of reasoning into moral subjects (*ital. added*)." Given the prominence Hume gave to this reflection on the import of the *Treatise* it would seem reasonable to conclude that at least a portion of what Hume saw as distinctive of his philosophy lay with his effort to found its conclusions upon what he called "the experimental method". That Hume took this to be a central feature of the *Treatise* is clear from the outset.

In the *Advertisement* to the first two books of the *Treatise* Hume tells us that if we want to understand their general "design" we need only look to the "Introduction." And when we turn to Hume's brief introduction we find him doing two things. On the one hand, we find him lamenting the poor state in which philosophy (esp. metaphysical and speculative reasoning) has found herself:

Principles taken upon trust, consequences lamely deduced from them, want of coherence in the parts, and of evidence in the whole, these are every where to be met with in the systems of the most eminent philosophers, and seem to have drawn disgrace upon philosophy itself.

And the problems do not stop here. It would be bad enough if philosophy were unaware of the mess she had come to be in. Hume goes on to indicate, however, that the situation is still worse, "even the rabble without doors may judge from the noise and clamour, which they hear, that all goes not well within." In turn, they (the "rabble") come to adopt the "common prejudice" that "every thing is uncertain," and they consequently tend to reject even the least abstract reasoning issuing from therein. There is, then, on the one hand, this first thought in the introduction: That philosophy has gone awry, that she has become so deeply "speculative" and unrestrained in her reasoning that none of her conclusions may be trusted.

On the other hand, and more to the point of my present purpose, it is clear that Hume sees his own efforts in the *Treatise* as an attempt to remedy the chaos and confusion in which Philosophy has found herself. The solution as he sees it resides in the development of what he calls the "science of man" or, as he alternately describes it there, an "experimental philosophy." Hume is equally clear in his introduction that it is only through the application of this "experimental philosophy" that we will be able to find any "success in our philosophical researches," or that we will be able to free ourselves from the "tedious lingering method," which led philosophy into the predicament in which Hume found her.<sup>1</sup>

Setting aside, at least for the moment, any discussion of its specific nature or merits, it is indisputable that Hume saw his appeal to an "experimental" method as a novel hallmark of his philosophy. In his famous closing passage to the first *Enquiry* Hume offers the following dictum:

When we run over libraries...what havoc must we make? If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, Does it contain any

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<sup>1</sup> There are at least a few other items worth noting in connection with discussion. First and second, something more needs to be mentioned about Hume's use of the terms 'philosophy' and 'science'. Third and fourth something needs to be said here regarding the manner in which Hume's remarks in the Introduction bear upon his views about *metaphysics* and *skepticism*.

abstract reasoning concerning quantity or number? No. Does it contain any experimental reasoning concerning matter of fact and existence? No. Commit it then to the flames: For it can contain nothing but sophistry and illusion.

Hume's dictum here is abrupt, severe, and unreservedly final. Insofar as Philosophy concerns herself with making claims about our reasoning concerning matters of fact and existence she must confine herself to the "experimental method." I'll refer to this as "Hume's first methodological maxim." Though the significance of this maxim is not obvious at the outset it is evident that Hume sees himself to be conducting a scientific inquiry—what he calls the "science of human nature"—and that, further, he views himself to be providing this as a remedy to a then ailing philosophical enterprise. It is also clear that he sees the "experimental method" as the distinguishing feature of his science.

Two important "thoughts" emerge from the foregoing discussion:

- Academic Philosophy, at the point Hume finds it, is a mess; a mess that is largely due to its rampant appeal to what Hume terms "speculative principles" which have led in turn to sophistical, illusive, unintelligible and generally infelicitous pseudo-explanations.
- The way out of this mess is only to be found in the earnest application of the "experimental method" of explanation within the moral sciences.

Now, I believe that each of these points not only characterizes an overarching organizing principle adopted by Hume in formulating his "science of man", but equally characterizes a position adopted by Hume that I believe has been left significantly underappreciated or misunderstood. Additionally, the failure to appreciate the manner in which these principles organize Hume's philosophy has led to significant distortions of his views within the philosophical literature. Moreover, that first thought, that moral philosophy has come to be in a bad way, highlights Hume's awareness that his first methodological principle does not arise in an intellectual vacuum. In order to clear the way for the "introduction" of "the experimental method of reasoning into moral subjects" Hume adopts a second, equally important, maxim most explicitly formulated in the *Abstract*:

wherever any idea is ambiguous, he has always recourse to the impression... when he suspects that any philosophical term has no idea annexed to it (as is too common) he always asks from what impression that pretended idea is derived? And if no impression can be produced, he concludes that the term is altogether insignificant and it were to be wished, that this method were more practiced in all philosophical debates.<sup>2</sup>

Hume's second methodological maxim thus comes in the form of a criterion of intelligibility or cognitive content which is meant to serve as a check upon our speculative and metaphysical reasoning. Here, he provides us with some indication of not only what ails philosophy but also provides a remedy. Our affliction, according to Hume, revolves around the ambiguity of our philosophical expressions as well as the vagueness of our ideas. Moreover, he indicates that in order to find our way free of those disputes which, "have drawn disgrace upon philosophy," we must begin by clarifying the very terms or expressions which

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<sup>2</sup> A, pp. 648-649.

gave rise to the variety of philosophical controversies we find ourselves confronted with. Second, he tells us what such a resolution would consist of: We must first look to the ideas we have associated with the suspect terms or expressions and if we should find the associated ideas ambiguous, vague, or undiscerning then we should look to the impressions from which the idea was derived. Finally, he indicates that this procedure is generally applicable for he “has always recourse to it” and it affords us, moreover, a rigorous method by which we may carry out this check.

My main interest here will be with fleshing out the first of Hume’s methodological maxims—the application of an experimental method to moral subjects—though, since the two are bound up together I will have occasion to touch briefly upon the second as we proceed. It is, however, in the first that we find Hume’s Newtonian image of science most clearly expressed. Indeed, it is within that maxim that Hume himself locates most explicitly the Newtonian influence. It is also here where I think deep misunderstandings of Hume’s method have led to serious missteps within some contemporary and somewhat pervasive trends in the Hume literature. Consequently, my approach presently will be to begin with an examination of what I will argue constitutes a substantial misrepresentation of Hume’s experimental method.

## II.

As a very brief overview: According to one school of thought, sometimes labeled the skeptical-realist (I’ll call this S-R for brevity) or “New Hume” school, Hume is committed to (1) a metaphysical thesis affirming the existence of a distinct, shall we say “mind-independent”, Reality. More substantively, on this view, Hume’s considered position is that impressions afford us at best indirect access to the objects and properties they represent. Many students of this school attribute to Hume the additional skeptical thesis that (2) with regard to this independent Reality, “we can know nothing for sure about its nature....<sup>3</sup>” Thus, students of this school of thought maintain a view of Hume according to which he is deeply metaphysically committed; according to which, “The formal distinction between ‘perceptions’ and objects is fundamental;<sup>4</sup>” according to which we interact with a world of machines the “true” nature of which we can never appreciate; a view according to which words, ideas, and impressions “represent bodies” by “producing effects in the mind that are identical or similar to some of the of the effects that are or would be produced by the bodies themselves;<sup>5</sup>” according to which, “the natural belief in the reality of the external world is, *ipso facto*, the most probable opinion;” and, finally, a view according to which “[Hume’s] belief in the external world established by the operations of instinctive probabilistic mechanisms shows him to be a skeptical realist.<sup>6</sup>”

In attributing the metaphysical stance to Hume, advocates of the S-R view employ a range of tactics. One broad strategy is to appeal to what they take to be the metaphysically invested language employed by Hume throughout his writing. Thus Strawson writes, “[Hume] *standardly* accepts that there is some unknown ‘ultimate cause’ of our perceptions (T84),

<sup>3</sup> Strawson (1989), p. 68.

<sup>4</sup> Wright (1983), p. 19.

<sup>5</sup> Garrett (2006), pp. 311-312.

<sup>6</sup> Buckle (2001), p. 112.

which has some unknown or unknowable essence.<sup>7</sup> Wright maintains, “a *central aim* of Hume’s philosophy of the understanding is to show that we retain commerce with a world of independent objects through a species of natural judgments....<sup>8</sup>” The view that emerges out of Hume’s language is one according to which bodies external to and independent of the mind cause perceptions therein. We can of course never gain certain insight into the true nature of these bodies or, for that matter, even be certain of the correctness of our hypothesis. Nonetheless, according to Garrett Hume’s acceptance of the realist hypothesis, “is *implied in dozens if not hundreds of remarks* throughout his philosophical writings.<sup>9</sup>”

One of the main tactics employed by these authors is consequently to recite the passages where Hume “mentions” items like the “ultimate causes” of our impressions or the “objects” of perception<sup>10</sup> and then proceed to argue that he “uses” these notions to lay out a distinctively metaphysical picture. Frequently, moreover, the existence of such passages is taken to entail or imply that laying out this view is one of Hume’s “central” aims. In its most general form it commits Hume to the belief in a “external reality” distinct from, and, strictly speaking, inaccessible through, our perceptions. Coupled with its often attendant skepticism it commits Hume to a position according to which he,

does not claim to know the correctness of any Basic Realist position about the nature of objects...he takes for granted that there does exist an external reality, i.e. something other than our perceptions, something which affects us and gives rise to our perceptions; and in this sense he does positively, and crucially, adopt a Basic Realist position of some sort with regard to ‘the objects’.<sup>11</sup>

Additionally, (and this is the part I am most interested in), in an effort to argue their case, some proponents of this view cast Hume as an exponent of the mechanical philosophy who is bringing to bare his mechanistic teeth in the domain of moral philosophy; mechanizing, that is, the “Science of Man”. This theme is most pronounced in Wright (1983) and, more recently, in Buckle (2001).<sup>12</sup> Though it takes its cue from Hume’s dispersed mentions of “objects” and causes” it goes well beyond merely attributing to Hume an adherence to the belief in an external reality. According to this mechanistic interpretation we must recast the whole import of Hume’s theory of ideas in mechanistic terms. In order to fully appreciate this mechanistic transcription of Hume’s account of human understanding, and

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<sup>7</sup> Strawson (1989), p. 65 (italics added). The passage that Strawson has in mind which presumably demonstrates Hume’s “standard” acceptance of the metaphysical thesis Strawson attributes to him occurs at T. 1.3.5, “As to those impressions which arise from the senses, their ultimate cause is, in my opinion, perfectly inexplicable by human reason, and ‘twill always be impossible to decide with certainty,...”. While it is beyond my present aim, it is worth noting that there is nothing obvious about Strawson’s reading of the passage. Along these lines it is worth considering the relation of this remark to what Hume say elsewhere. In particular it is instructive to consider his remarks at T. 1.4.2. concerning “reasons” capacity to provide us with “the opinion of a continu’d and distinct existence.”

<sup>8</sup> Wright (1983), p. 5 (italics added).

<sup>9</sup> Garrett (2006), 306 (italics added).

<sup>10</sup> On Hume’s talk of ‘objects’ see Greene (1994).

<sup>11</sup> Strawson (1989), pp. 67-68.

<sup>12</sup> See Buckle (2001), throughout; and Wright (1983), esp. pp. 213-221.

equally the problems it faces, it may well be worth our time to briefly rehearse the familiar foundational apparatus of Hume's theory of the understanding.

It is well widely appreciated that Hume divides perceptions, the basic units of cognition, into impressions and ideas. Both ideas and impressions may be either simple (i.e. indivisible wholes) or complex (i.e. divisible into parts.) Both lie on a continuum of degree of force and vivacity. Yet, with respect to the distinction between impressions and ideas this continuum is not well ordered as both are potentially intermingled, at least, near the midpoint of the spectrum. Thus, Hume tells us, "in any violent emotions of the soul, our ideas may approach to our impressions."<sup>13</sup> Additionally, Hume adopts what some expositors have termed the *copy principle*. According to this principle "*all our simple ideas in their first appearance are deriv'd from simple impressions, which are correspondent to them, and which they exactly represent.*"<sup>14</sup>

According to Hume, the only objects on which the understanding may operate are those perceptions which are suitably connected to impressions, or experience. Impressions or observations are *given* in our experience and ideas are copied from them. Of course to say that ideas are "copied" may be misleading. The vast arrangement of our ideas is complex in nature, and it consequently involves a variety of simple ideas. Hume's contention is that the simple ideas, of which complex ideas are composed, represent or correspond to simple impressions or basic observations. For Hume it is the function of the understanding to permute and combine our simple ideas thus deriving compound or complex ideas which may or may not (in the case of fictions) track (or correspond with) impressions. As he says,

Nothing is more free than the imagination of man: and though it cannot exceed that original stock of ideas furnished by the internal and external senses, it has unlimited power of mixing, compounding, separating, and dividing these ideas, in all of the varieties of fiction and vision.<sup>15</sup>

How exactly we are to understand Hume's talk of 'impressions' is precisely what is at issue with the mechanistic interpretation of Hume. Proponents of this view generally locate Hume squarely within the mechanical tradition and treat his talk of impressions as part of a mechanical theory of perceptions according to which objects (individuals and properties in the "world") literally leave their "impressions" on us—they, as it were, become stamped upon those soft and malleable cerebral tissues which instantiate our thoughts. Fading over time these physical impressions devolve or decay into less faithful representations or ideas. Hume

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<sup>13</sup> For the references throughout this section I adopt the following conventions: The present reference is to *A Treatise on Human Nature*, edited by L. A. Selby-Bigge, 2<sup>nd</sup> ed. revised by P. H. Nidditch. (Oxford: Clarendon Press, 1978), and occurs in Book 1, Part 1, Section 1, on page 2: for brevity, T 1.1.1, p. 2 hereafter. Other references to Hume are from either David Hume. *An Abstract of a Book lately Published*, in: *A Treatise on Human Nature*, edited by L. A. Selby-Bigge, 2<sup>nd</sup> ed. revised by P. H. Nidditch. (Oxford: Clarendon Press, 1978) and abbreviated as A, p. xx or to; David Hume, *Enquiries concerning Human Understanding and concerning the Principles of Morals*, edited by L. A. Selby-Bigge, 3<sup>rd</sup> edition revised by P. H. Nidditch. (Oxford: Clarendon Press, 1975), abbreviated as EHU, p. xx.

<sup>14</sup> T 1.1.1, p. 4.

<sup>15</sup> EHU. 47.

on this view is “centrally” interested in explaining “psychological processes in physical terms,” in terms of the “forceful motions of animal spirits.<sup>16</sup>” On this mechanistic reading the world is composed of the natural analogues of machines; analogues which function according to the same principles and laws governing the artifacts of human design.<sup>17</sup> According to this view the world is composed of objects pushing against, and pulling upon, one another and the mind for Hume is a consequence of these actions. As Buckle articulates it,

The sense organs can be understood as structures that have the internal constitution necessary to respond to pressing... Sensations can be understood as impressed forces. A perception lasts as long as the relevant force (the perceptual stimulus) is applied, and is replaced by a new perception once a new force is applied... Hume’s adoption of the term ‘impression’ is thus strong if circumstantial support for his accepting a background picture that is not only realist, but mechanical.<sup>18</sup>

There is no doubt that such a view, at least on its face, would be very much in line with good ole Cartesian demands on adequate explanations. Adequate explanations must, on this model, account for the phenomena in purely mechanistic terms. In the seventeenth century and, as well, at least in France and Germany in the early part of the eighteenth century, this meant explaining the phenomena in terms of the “size,” “shape,” and “motion” of their constituent parts. And what we see here imagined and attributed to Hume is a view that approximates a mechanistic theory of perception. Nonetheless, problems quickly surface.

It is straight away a terribly hackneyed and incomplete account of the mechanisms of perception. A question immediately arises concerning the “mechanism” by which these “impressions” become stamped upon the soft tissues that receive them. Nothing even approximating a mechanistic account of this is provided, and if Hume was centrally concerned with advancing this sort of account as any essential part of his experimental method, here seems to be a gap that he would have viewed as crucially in need of being filled. To leave it otherwise would seem to render him guilty of the very same sorts of speculative mistakes he sought so roundly to eradicate from philosophy.

Also troubling here is that the fact that if this is what Hume is hanging his “experimental” coat on there is nothing particularly novel or revolutionary about it. As Buckle and Wright both eagerly point out such mechanical theories of perception were on offer well before Hume took up the project of the *Treatise*. Moreover, this isn’t “an introduction of the experimental method into moral subjects.” It is instead to put forward a thesis squarely in the domain of natural philosophy granted; in effort to ground ones moral philosophy. But as Jones notes, “It is intriguing to notice that Hume, in the *Introduction* to the *Treatise*, specifically argues that “Mathematics, Natural Philosophy, and Natural Religion, are in some measure dependent on the science of MAN”, and that “the science of man is the only solid foundation for the other sciences.” At the outset, therefore, Hume separates himself from the

<sup>16</sup> Wright (1983), pp. 211, 213 respectively.

<sup>17</sup> In the face of this view it’s tempting to plea for Philo to rise up from his literary tomb in Hume’s defense but I will avoid making such a plea at present.

<sup>18</sup> Buckle (2001), pp. 133-134.

Newtonians.<sup>19</sup> And, as Hume himself notes, his “intention never was to penetrate into the nature of bodies, or explain the secret causes of their operations.”<sup>20</sup>

But even if we could find our way around these issues, another, and I think more pressing, concern arises. If it is right to think that it was with the introduction of the experimental method into moral subjects that Hume saw himself to be most clearly engaged with the application of the Newtonian paradigm of explanation, then it is at least worth noting that the reception of Newton’s explanation of gravitational phenomena did not occur overnight. And one of the central obstacles to the reception of Newton’s explanation was the fact that it could not be readily squared with the mechanistic strictures that dominated the Cartesian natural philosophy of the seventeenth century. Newton was widely criticized, most notably by Leibniz, for not having provided a mechanistic account of gravitational phenomena. Instead, what Newton had achieved, at least in the *Principia* was an explanation of the motions of bodies couched in terms of their “quantifiable” relations.

Still, and despite all of this, one might hold out that Hume was covertly committed to a mechanistic view of perception and further, that, that fact underwrote, in some crucial respect, his philosophical views. But here I confess that from my point of view what becomes more and more likely is that there is here a misguided attempt to persevere with a mistaken attribution of metaphysical and realist commitments to a philosopher who may simply have not held any such views—It conjures up images of one trying to provide CPR while drowning.

On the other hand, the thought that Hume *might* have endorsed some such mechanistic theory of *perception* is not, on its face, particularly troubling to me. There are, however, those other riders that typically come along with it that I do find troubling. The first, and principle concern, is the idea that such a commitment thoroughly informed Hume’s philosophical views. Secondly, it is typically asserted that we are, of a sort of constitutional necessity, epistemically detached from these natural objects which, nonetheless, make their impressions on us and thereby produce the contents of the understanding. Respecting these, Buckle maintains Hume’s philosophy,

...is realist in that it affirms that we live in a world that exists independently of us, and that has real powers that *reflect* its specific constitution. It is skeptical because of its skeptical interpretation of experience: it implies that we are not able to penetrate beyond appearances—the mechanical effects of that world on us—to discover the *essential nature* of the world.<sup>21</sup>

Hume’s skepticism surfaces, according to Buckle, with the “copy principle”. As Buckle sees it the mind in Hume’s portrait is largely the passive receptacle of ideas which are little more than degraded impressions since “for an idea to arise through a copying process is

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<sup>19</sup> Jones, Peter. *Hume’s Sentiments*, p. 15. Here Jones is distinguishing Hume’s view of the role of natural philosophy in relation to the other sciences from that of “Newtonians” such as Pemberton and Maclaurin. As Jones sees it, the latter theorists saw Newtonian natural philosophy to be in service of moral philosophy (think of Cleanthes in this regard), whereas Hume saw a properly developed moral philosophy as constituting the foundations for any adequate natural philosophy.

<sup>20</sup> T 1.2.5.26

<sup>21</sup> *Ibid.*, p. 194.

for it to arise through a mechanical process in which the mind plays no active role.<sup>22</sup> For Buckle then, Hume's 'copy principle' encapsulates his realist commitments through its "obvious" realist overtures, as well as his skeptical attitude.

### III.

There is no doubt that those who would hope to attribute the mechanical stance to Hume will not be at a loss to discover, in his writings, passages that lend credence to their interpretation, provided we carry with us, as we proceed, the common philosophical intuitions we were reared on. Those intuitions tell us, after all, how we are supposed to read philosophical nomenclature. Consider the following passage from "The Sceptic":

[1] If I examine the Ptolemaic and Copernican systems, I endeavor only, by my enquiries, to know the real situation of the planets, that is in other words, I endeavour to give them, in my conception, the same relations, that they bear towards each other in the heavens. To this operation of the mind there seems to be always, though often an unknown standard, in the nature of things; nor is truth or falsehood variable by the various apprehensions of mankind<sup>23</sup>.

But if this passage doesn't provoke our learned proclivities, there are others which speak specifically to Hume's supposedly "obvious" mechanistic sentiments. At T. 1.2.5, for example, Hume writes,

[2] 'T'wou'd have been easy to have made an imaginary dissection of the brain, and have shewn, why upon our conception of any idea, the animal spirits run into all the contiguous traces, and rouse up the other ideas, that are related to it. But tho' I have neglected any advantage, which I might have drawn from this topic in explaining the relations of ideas, I am afraid I must here have recourse to it, in order to account for the mistakes that arise from these relations. I shall therefore observe, that as the mind is endow'd with a power of exciting any idea it pleases; whenever it dispatches the spirits into that region of the brain, in which the idea is plac'd; these spirits always excite the idea, when they run precisely into the proper traces, and rummage that cell, which belongs to the idea. But as their motion is seldom direct, and naturally turns a little to the one side or the other; for this reason the animal spirits, falling into the contiguous traces, present other related ideas in lieu of that, which the mind desir'd at first to survey.

Now what could be more obvious, in light of these manifestations, than the fact that Hume's views were under-written by a peculiar theory of perception. There is no need to

<sup>22</sup> Ibid, p. 135.

<sup>23</sup> Hume (1875), pp. 217-218.

revisit the details of the theory. Our aim here is, instead, to observe its obvious instantiation in [1] & [2] above. I will grant my opposition this much: Hume felt himself freely entitled to discuss, and I imagine meaningfully, “planets,” “their relations,” “nature,” “neural fluids (animal spirits),” “the topography of the brain,” and so on. But what exactly are the passages supposed to evince? Our philosophical upbringing perhaps suggests to us that if one speaks of ‘planets,’ ‘animal spirits,’ ‘objects,’ and ‘causes’ then one must believe in planets, animal spirits, objects, and causes no matter how skeptical they may be of our capacity to comprehend these distal natures. But here I object!

I believe my opponents have gotten off track with their reading of Hume. But this is not so much because I believe they have mistakenly assigned to Hume a view of perception he does not endorse. His main project, as I have already suggested, is not to say what an adequate theory of perception would look like. Nor do I believe that a commitment to any such view is necessary to his science of human understanding. Hence, I don’t believe such an account (of perception) “grounds” the remarks he makes respecting the science he is trying to develop. Hume is instead interested in developing an account of cognition. A project which engages the experimental method in order to discover the principles by which our perceptions (ideas and impressions) become *associated* with one another and a project which subsequently applies these principles in the discovery and explanation of the contents of our perception.

As I have already noted this project is undertaken in light of his second methodological maxim. What characteristically underwrites his account here is a criterion of intelligibility that he employs to eliminate any tendentious metaphysical baggage from the theory. So here I want to briefly say just a bit more concerning the nature of this criterion before concluding with a clarification and defense of what I am calling Hume’s Newtonian image of science.

Like Locke, Hume thought that terms *signify* ideas, and he maintained that a term is intelligible or meaningful only insofar as it signifies some idea. But Hume’s account goes beyond this. Whether or not some idea is signified by a term is a function of the impression(s) to which the idea corresponds or from which it is copied. While meaningful terms signify *genuine* ideas, unintelligible terms or expressions signify, at best, a “feigning” of the imagination.”<sup>24</sup> Such feigned ideas are not genuine because there are no corresponding impressions from which the feigned thought is derived. As Hume saw it these later terms were unintelligible. This framework, then, grounds Hume’s intelligibility criterion and in turn, his criticisms of the school metaphysics of his day. Reminding ourselves of his characterization of it in the *Abstract*, he tells us that he practices a method according to which,

wherever any idea is ambiguous, he has always recourse to the impression... when he suspects that any philosophical term has no idea annexed to it (as is too common) he always asks from what impression that pretended idea is derived? And if no impression can be produced, he concludes that the term is altogether

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<sup>24</sup> Hume variously speaks of the Imagination feigning ideas as he does when accounting for how his opponents attempt to resolve the contradiction in attributing both “simplicity” and “diversity” to a series of impressions: “In order to reconcile which contradictions the imagination is apt to feign something unknown and invisible, which it supposes to continue the same under all these variations; and this unintelligible something it calls a *substance, or original and first matter* (T 1.4.3, p. 220).” See also: EHU, pp. 21-22...

insignificant and it were to be wished, that this method were more practiced in all philosophical debates.<sup>25</sup>

In short, impressions produce the content on which the understanding operates. Accordingly, when Hume claims a term is unintelligible he is saying that no genuine idea is being signified by its use. That is, no idea whose simple parts can be traced to their corresponding impressions is signified by the expression. It is within this context that Hume claims at T. 1.4.3 that “substance” is an “unintelligible chimera” and that at T. 1.3.14 he says of ‘power’, “We never have any impression, that contains any power or efficacy. We never therefore have any idea of power.” And it is in this context that Hume maintains at T. 1.4.2 that “the only questions, that are intelligible,” concerning our idea of a continued and distinct existence concern whether the idea arises from the “*senses, reason, or the imagination.*”<sup>26</sup>

If we were to confine ourselves to just those ideas that are simple we can think of them as intentional representations. Of course, on Hume’s account, the only things that these intentional representations might be “of or about” are the observations (impressions) which gave rise to them. Moreover, “original” impressions are not themselves intentional since there is nothing of which we can have any idea that they might be of or about, that is to say they don’t represent. Talk about ‘the thing(s) that give rise to our impression(s),’ when it is taken in a specifically metaphysical sense, is itself a bit of nonsense in Hume’s view. Consequently, if simple ideas were all there were Hume’s criterion of intelligibility would be reducible to the view that *a term is intelligible if and only if it is associated with a representation (Idea) which corresponds with some feature of our experience (i.e. impression or set of impressions).* Fortunately, things are not so simple.

Obviously, those of our ideas which constitute fictions do not themselves correspond to any impression or observation. Consequently, they are not intentional objects in the same sense that simple ideas can be said to be. On the other hand complex ideas clearly will have some intentional content insofar as they derive this content from the simple ideas of which they are comprised. On this reconstruction we can think of Hume’s criterion of intelligibility as coming to the claim that *a term is intelligible if and only if it is associated with a representation (Idea) all of whose simple constituents correspond with some feature of our experience (i.e. impression or set of impressions).*

In holding that Hume was interested in providing an account of cognition—what he took to be a Newtonian account—I am maintaining that Hume is interested in the cognitive processes that underlie our various beliefs and ideas and that he is decidedly not interested in the physical interactions constituting our impressions. With respect to which theory of perception it is rationally advisable to adopt Hume is non-committal. Hume makes this explicit in opening Book II.<sup>27</sup>

there must be some impressions, which without any introduction make their appearance in the soul. As these depend upon natural and physical causes, the examination of them wou'd lead me too far from my present subject, into the sciences of anatomy and natural philosophy. For this reason I shall here confine myself to those other impressions, which I have call'd secondary and

<sup>25</sup> A, pp. 648-649.

<sup>26</sup> T 1.3.14, p. 161.

<sup>27</sup> T 2.1.1:

reflective, as arising either from the original impressions, or from their ideas. Bodily pains and pleasures are the source of many passions, both when felt and consider'd by the mind; but arise originally in the soul, or in the body, whichever you please to call it, without any preceding thought or perception.

This passage also makes clear that Hume's interest is with the identification of the principles by which our ideas are associated. These principles are, I contend, Hume's analogue of the Newtonian associative Laws that we find in the *Principia*; Hume's impressions and ideas being in turn the analogue in moral philosophy of the celestial orbs and other bodies related by such laws. Like Newton, Hume's science, his manner of explaining the phenomena, is not mechanistic. Nothing resembling a Cartesian mechanical view of our ideas and impressions and their interactions is offered. It is instead, like Newton's (in the *Principia*) an associative science. Hume's explicit view of philosophy as well as his practice of it supports this conclusion. In the *Dialogues Concerning Natural Religion* Hume has this to say of the nature of the philosophy:

... that from our earliest infancy we make continual advances in forming more general principles of conduct and reasoning; that the larger experience we acquire, and the stronger reason we are endued with, we always render our principles the more general and comprehensive; and that what we call philosophy is nothing but a more regular and methodical operation of the same kind. To philosophize on such subjects, is nothing essentially different from reasoning on common life; and we may only expect greater stability, if not greater truth, from our philosophy, on account of its exacter and more scrupulous method of proceeding.<sup>28</sup>

While Hume does not here explicitly label "the principles" associative it is clear the discovery of these principles comes about through careful attention to the manner in which our perceptions are associated with one another. Here, in the *Dialogues*, trusted to the hands of Philo, it is none other than a variation of the principle of uniformity—from like effects we may infer like causes—that is under cautious experimental scrutiny. And what does this experimental scrutiny consist of? Here, just as it does elsewhere, it consists of the fine grained discrimination of the causal associations or constant conjunctions of our impressions.

This picture of Hume, as a Newtonian philosopher interested in investigating the associative laws or principles which govern the operations of the understanding or cognition nicely explains Hume's view of moral philosophy as the capital or center upon which all philosophy, including the natural philosophy of Newton, is dependent. As Hume makes clear in the above passage, all philosophy, all science, indeed all human understanding, is dependent for its content on the perceptions of the mind and the principles governing their associations. It is also here, and I will conclude with this, that we find what Hume took to be so revolutionary in his philosophy. In concluding his Abstract Hume notes,

It will be easy to conceive of what vast consequence these principles [of Association] must be in the science of human nature, if we consider that, so far as regards the mind, these

<sup>28</sup> Hume, *Dialogues*, pp. 10-11.

are the only links that bind the parts of the universe together, or connect us with any person or object exterior to ourselves. For as it is by means of thought only that anything operates upon our passions, and as these are the only ties of our thoughts, they are really to us the cement of the universe, and all the operations of the mind must, in a great measure, depend on them.

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