

Hume and a worry about simplicity

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1. Introduction

David Hume often appears strongly in favour of the simplicity of explanations. Thus John P. Wright remarks, talking about the *Treatise*, that “Hume’s earliest work in the sciences of man is most distinctively characterized by his goal to explain the phenomena of human life by the *simplest* possible principles”.¹ That lines Hume up with many others, at the time and more recently, who have thought of simplicity as a positive feature of theories and explanations. One might think, for instance, that a great part of the appeal of mechanist views, such as were prominent in the seventeenth century, has to do with their simplicity. Cartesian physics, for instance, promised to explain all of its subject matter in terms of extension and its modifications. Hobbes’s rival conception of extended matter in motion offered a similarly minimal picture of the basic components of the physical world. Robert Boyle was also a proponent of the value of simplicity, and listed among the “Qualities & Conditions of an *Excellent Hypothesis*” that “it be the Simplest of all the good ones we are able to frame”.² The thought that simplicity is a positive feature of explanations endures. There was a good deal of discussion of this in twentieth-century philosophy.³ And the discussion continues today.⁴

However, though it’s clear that Hume favours simple explanations in the *Treatise*, in the *Enquiry concerning the Principles of Morals* he explains the errors of Hobbes and others as resulting from their “love of *simplicity*”. There is thus some apparent tension in Hume’s views about simplicity. Should we look for simple explanations, or not? I address this puzzle

by looking closely at relevant texts of Hume's, in particular texts from the *Treatise* and second *Enquiry*. That leads me to a clearer picture of two attitudes towards simplicity that are present in Hume's texts. On the one hand he has a positive attitude to simplicity, and thinks that the search for simple explanations is a natural, indeed good, endeavour. On the other hand, he has quite definite worries about the search for simplicity, and the ways in which looking for simple explanations can lead one away from true explanations. Looking more widely, we can find very similar worries in the work of Hutcheson, Smith, and Reid. This concern about the search for simplicity is not just a one-off argument of Hume's. There is, rather, a notable series of philosophers worrying about much the same thing. Hutcheson and Smith, like Hume, state this worry in the context of discussing theories of morality based on self-interest. Reid widens the scope, and states the worry in discussing Cartesian epistemology and physics. Reid connects these worries about simplicity to Bacon's discussion of idols.

I begin though with the puzzle about Hume. On the one hand, he appears to think that simplicity is a positive feature of theories and explanations, and thinks some of his own views are to be valued, in part, for their simplicity. On the other hand, Hume claims that the errors of those such as Hobbes who explain morality using self interest are caused by their having sought simple explanations. We can see the first attitude, in favour of simple explanations, in a text from Book 2 of the *Treatise*, where Hume is presenting his theory of the passions. He says that "the difficulty which I have at present in my eye, is no-wise contrary to my system; but only departs a little from that simplicity, which has been hitherto its principal force and beauty" (T 366-7/2.2.6.2).⁵ I look at this passage in more detail below. For now note just that Hume is clearly thinking here that simplicity is a positive feature of a

theory, and that his own theory in question has that positive feature. The second attitude is visible in Appendix 2 of the *Enquiry concerning the Principles of Morals*. Discussing attempts such as Hobbes's to explain morality in terms of self-interest ("self-love"), Hume says that "All attempts of this kind have hitherto proved fruitless, and seem to have proceeded entirely from that love of *simplicity* which has been the source of much false reasoning in philosophy" (EPM 298/App 2.6). I discuss this text too in more detail below. The key notable feature, however, is the claim that looking for simplicity leads to error. Though these two statements are not in perfect contradiction, there is clearly some tension. Is simplicity a positive feature of a theory, something we ought to seek out? Or is the search for simplicity a misguided one, and simplicity itself thus not to be recommended as a feature of a theory?

There are two main sorts of explanation one might give for this tension in Hume's texts. The first is that Hume changed his mind about simplicity, favouring it in the *Treatise* but not in the second *Enquiry*.⁶ The second obvious sort of explanation involves pointing to some complexity in Hume's views about simplicity. After all, what counts as simplicity is not itself a simple and straightforward matter. Perhaps Hume thought there were different sorts of simplicity, some valuable and others not. Or perhaps he thought that simplicity was a positive feature of theories on some realms but not in others. And we might combine the two sorts of explanation: perhaps Hume's view was more complicated and changed over time.

2. Discussions of simplicity in the *Treatise*

With these two sorts of possible explanation in mind, I will proceed by looking at relevant Humean texts. I begin with some passages from the *Treatise*. Here Hume seems, as Wright notes, to be quite clearly in favour of simplicity.

Hume's earliest work in the sciences of man is most distinctively characterized by his goal to explain the phenomena of human life by the *simplest* possible principles. This goal of simplicity is stressed both in the Introduction to the *Treatise* and in the *Abstract*. At the beginning of Book II of the *Treatise* Hume claims that the goal of the skilled 'naturalist' is to find the 'few and simple' principles which account for many effects (T.282). Later on in the same book he speaks of 'simplicity' as the 'principal force and beauty' of his system (T.367).⁷

Insofar as Wright's claims are focused on the *Treatise*, I have no wish to disagree with him. I do, however, want to spend some time looking at a passages in which Hume talks about simplicity, to see in more detail what he has to say. I aim in particular to examine what sort of simplicity Hume has in mind.

Early in the *Treatise* Hume says the following about his copy principle that all simple ideas are copies of simple impressions: "This then is the first principle I establish in the science of human nature; nor ought we to despise it because of the simplicity of its appearance" (T 7/1.1.1). The copy principle is simple, Hume says, and that's not a reason against it. So simplicity is not for Hume a negative feature of a theory or explanation. The simplicity involved seems to be that of a simply stated principle. The copy principle, despite the fact that it tries to explain the origin of many, many ideas, can be stated in one sentence. In its fullest statement, the principle is that "*all our simple ideas in their first appearance are*

deriv'd from simple impressions, which are correspondent to them, and which they exactly represent" (T 4/1.1.1.7). The sort of simplicity that Hume has in mind appears then to be that of an explanation that can be simply stated. There's no great precision here as to how to measure this – after all, it's something that might vary from language to language – but this seems to be the general idea that Hume has in mind.

A similar thought occurs in Hume's discussion of the passions. After explaining his theory, and giving in particular his explanation of love and hatred, Hume finds a complication. He needs to explain the connection between love and benevolence, benevolence and anger. In 2.2.6. he considers two alternative explanations. Either way, it seems, he needs to add something to his theory of the passions. Discussing this addition, Hume says that "the difficulty which I have at present in my eye, is no-wise contrary to my system; but only departs a little from that simplicity, which has been hitherto its principal force and beauty" (T 366-7/2.2.6.2). The departure from simplicity is in the addition of an extra part to the theory – a story about how our minds are structured to bring about the relation between love and benevolence. The simplicity that Hume has in mind here seems to be the same as that involved in the discussion of the copy principle. And in this case there's a clear statement that such simplicity is a positive feature of a theory. Hume sees that his theory of the passions has lost a little of that positive feature by the addition of the extra explanation – but not, he claims, too much.

Hume's positive attitude towards that sort of simplicity is visible again in the Abstract, where he talks about the *Treatise*'s search for "those few simple principles, on which all the rest depend" (T 646/Abstract.1). The simplicity is that of principles, which here is apparently

praised again. Indeed, this idea, that simply-statable principles are preferable to complex ones, appears to be Hume's main thought about simplicity in the *Treatise*.

One prominent passage does not quite so clearly fit this mould. That's a passage in the Introduction to the *Treatise* in which Hume mentions the search for the "simplest and fewest causes" (T xvii/Intro). Hume is clearly in favour of this: the problem is not that he suggests a negative attitude to simplicity here. The question, however, is whether he is talking about 'simplicity' in the same sense. Talk of 'simplest causes' might however be taken as referring to 'most simply statable causal principles', so we have here the same idea as in the passages above. If not, then perhaps there is another sense of simplicity at work: a preference for the simplest causal mechanisms perhaps. However, though this passage does introduce a possible ambiguity, it changes little about the overall picture of Hume's attitude towards simplicity.

Something genuinely different goes on in *Treatise* 1.3.16, a discussion of animal cognition, where there's some further talk of simplicity. Hume's main point in this section is that animals think, so any theory about how thinking works – at least, any theory of some sort of thinking done by both animals and humans – ought to apply to the thinking animals as well as to adult humans. Thus, Hume argues, theorists of the mind should be careful not to attribute excessively complex thoughts to us all with their theories, as it will be especially implausible that animals think those complex thoughts.

The common defect of those systems, which philosophers have employ'd to account for the actions of the mind, is that they suppose such a subtilty and refinement of thought, as not only exceeds the capacity of mere animals, but even of children and the common people in our own species; who are

notwithstanding susceptible of the same emotions and affections as persons of the most accomplish'd genius and understanding. Such a subtilty is a clear proof of the falshood, as the contrary simplicity of the truth, of any system (T 177/1.3.16.3).

Again here Hume praises simplicity over complexity. But whereas elsewhere he has in mind the simplicity or complexity of explanatory principles, here he is discussing the simplicity or complexity of the thoughts that theories attribute to people. There's an issue of method here (at least, a rule of thumb to use in constructing theories of the mind), but also and more fundamentally a factual issue about the actual amount of complexity in human thought.

3. Discussions of simplicity in the *Enquiry concerning the Principles of Morals*

A positive attitude to simplicity of explanations appears to remain in the *Enquiry concerning the Principles of Morals*.⁸ In the conclusion of that work, after summing up its main view – that personal merit consists in possessing qualities either useful or agreeable to the possessor or others – Hume wonders why this view has been neglected.

And it seems a reasonable presumption, that systems and hypotheses have perverted our natural understanding, when a theory, so simple and obvious, could so long have escaped the most elaborate examination (EPM 268-9/9.1).

Obviously there are rhetorical benefits to concluding with the statement that one's theory is simple and obvious. But this statement does in fact fit together nicely with Hume's claims about simplicity elsewhere, and is not a mere rhetorical flourish. The theory of personal merit, much like the copy principle, explains a lot but can be briefly and clearly stated. That is, it's

simple in the sense of being simply storable. Hume takes this to be a positive feature of the theory, and something that others should recognize as a positive feature of it.

After the conclusion of EPM, Hume adds several appendices. Whereas the main text lays out Hume's own view without much engagement with other views, the appendices engage with alternative views and related philosophical debates. Appendix 2 tackles views that explain morality in terms of what Hume calls "self-love". He addresses two main variants of the view. The first – which in Hume's time was perhaps held by Mandeville – is the view that morality is matter of deliberate lies and deception, covering up self interest.⁹ This view Hume thinks worthy of little attention, and he dismisses it quickly. The second view, which Hume discusses in much greater depth, tries to explain morality in terms of self interest without denigrating morality in the way that the first view does. In discussing this view Hume makes three arguments concerning simplicity, which I will discuss in turn.

The first of these three arguments is the diagnosis of Hume's opponents' errors as stemming from their "love of *simplicity*".

To the most careless observer there appear to be such dispositions as benevolence and generosity; such affections as love, friendship, compassion, gratitude. These sentiments have their causes, effects, objects, and operations, marked by common language and observation, and plainly distinguished from those of the selfish passions. And as this is the obvious appearance of things, it must be admitted, till some hypothesis be discovered, which by penetrating deeper into human nature, may prove the former affections to be nothing but modifications of the latter. All attempts of this kind have hitherto proved fruitless, and seem to have proceeded entirely from that love of *simplicity*

which has been the source of much false reasoning in philosophy (EPM 298/App 2.6).

Hume here relies on other arguments to show that the opposing view is wrong. The talk about simplicity here is an attempt at an explanation of why those opponents went wrong, not an argument that they are wrong. But what did those opponents think about simplicity, and how does it relate to what Hume says here? In discussing this I'll consider Hobbes as an example opponent. He is one of those named by Hume (others include Locke and Epicurus). What did Hobbes think about simplicity?

An obvious place to look is chapter 6 of *De Corpore*, which contains Hobbes's main official statement of his views about method. Interesting as those are, there's little there about simplicity. The most explicit statement about simplicity there comes when Hobbes says early in the chapter that "method of philosophizing is the *briefest* investigation of effects through known causes or causes through known effects".¹⁰ Hobbes does not go on to expand on 'briefest', discuss what sort of simplicity he has in mind, or anything of the sort.

If we look at Hobbes's philosophical practice, rather than his statements of method, we find more relevant material. Consider, for instance, the way in which Hobbes in chapter 6 of *Leviathan* discusses the passions. Passions are defined in terms of others, in a way that effectively simplifies the ultimate list of passions. More generally, if we take Hobbes to think that self-interest is the only fundamental sort of motivation, we see him having simplified this field down to one. There are complications of interpretation here, concerning for instance the relation between self-preservation and self-interest, but the general picture is clear. Though Hobbes does not, in stating his method, place much emphasis on simplicity, his approach does, in a way, simplify. Thus one might, as Hume does, interpret Hobbes as

motivated by the search for simplicity. Notice, however, that this is not something that one can straightforwardly read off Hobbes's texts. A good deal of interpretive work is going on. Indeed, what we end up with is not an interpretation of Hobbes's arguments, but a claim about his underlying motivations.

That said, we should ask what sort of simplicity Hume has in mind. What was the simplicity that Hume thought Hobbes and others were seeking? It might be simplicity in the sense in which the copy principle is simple. One might take 'self-interest is the only fundamental motivation' to be simple in this sense. But Hume might well be thinking here about a third sort of simplicity, the simplicity involved in having as few things (or basic sorts of things) in your view as possible – just one fundamental sort of motivation, self-interested motivation, for instance.

There are now to be three senses of simplicity in the discussion: simplicity of theory statements, simplicity of attributed thoughts, and the simplicity of theory's ontology. Hobbes has gone wrong, Hume thinks, because he has focused too much on having a theory that's simple in the first or third senses. But why has this caused errors? After all, Hume himself clearly praises simplicity in the first sense. There's some answer to be found if we look how Hume develops his arguments.

Hume continues with a second argument about simplicity.

But the nature of the subject furnishes the strongest presumption, that no better system will ever, for the future, be invented, in order to account for the origin of the benevolent from the selfish affections, and reduce all the various emotions of the human mind to a perfect simplicity. The case is not the same in this species of philosophy as in physics. Many an hypothesis in nature,

contrary to first experiences, has been found, on more accurate scrutiny, solid and satisfactory ... But the presumption always lies on the other side, in all enquiries concerning the origin of our passions, and of the internal operations of the human mind. The simplest and most obvious cause which can there be assigned for any phenomenon, is probably the true one (EPM 298-9/App 2.7).

This connects back to the passage discussed above from the discussion of animal cognition in *Treatise* 1.3.16. Indeed there's a related discussion of animal cognition soon after this passage too. Here Hume is worried about simplicity in the second sense: the simplicity of the motives that theories attribute to people. The Hobbesian, Hume thinks, has focused too much on simplicity in the first or third sense, not enough on simplicity in the second sense. As a result, they've become committed to attributing highly complex mental causes to everyday mental events. An act with an apparently straightforward motive, such as benevolence, turns out to have a motive involving a fantastically complex calculation about long-term self-interest. Hume grants that an appearance or claim of benevolence is sometimes used as cover for other motives. But, he argues, it's not plausible that this is always the case. And, Hume argues, "We may as well imagine that minute springs and wheels, like those of a watch, give motion to a loaded waggon, as account for the origin of passion from such abstruse reflections" (EPM 300/App 2.7).¹¹

Hume goes on to argue that his own view is really the simpler one: "the hypothesis which allows of a disinterested benevolence, distinct from self-love, has really more *simplicity* in it" (EPM 301/App 2.12). This might seem contradictory, as Hume has just been criticizing others for having focused too much on the simplicity of their views. The solution lies in distinguishing different senses of simplicity. Here Hume's main focus is on the second

sense: the simplicity of attributed thoughts. The contrast is between saying that someone acted benevolently because of their benevolent motive, and saying they acted benevolently because of some long and convoluted piece of reasoning about long-term self-interest. The first, Hume says, is simpler than the second, and to be preferred for that reason. Hobbes's view might very well be simpler in the third (simple ontology) sense: but even if that's a good, it's outweighed here. And it's quite hard to say which view is simpler in the first sense: frankly, Hume is not paying much attention to that here.

In the *Treatise* Hume finds value in at least two sorts of simplicity. As a general principle of method, he endorses the search for simply stateable explanatory principles. He also attends to the simplicity and complexity of the thoughts that philosophers' theories claim are found in all of our minds, arguing that some philosophers such as Hobbes go wrong by attributing overly complex thoughts to us all. Close connections between the discussion of animal cognition in *Treatise* 1.3.16 and the discussion of Hobbes's errors in EPM Appendix 2 mean we shouldn't think Hume changed his mind about the second thought. We might wonder whether Hume's positive attitude towards simply stateable explanatory principles was weakened in the development of his views after the writing of the *Treatise*. We find in EPM a worry about the pursuit of simplicity. Despite this worry, however, Hume continued to believe that the search for simple explanations was a proper one, just one that should be pursued with caution.

4. A related worry about the generality of explanations

In some places Hume voices a worry related to that about simplicity, but about the generality of explanations. We see this, for instance, in the first section of EHU.

Moralists have hitherto been accustomed, when they considered the vast multitude and diversity of those actions that excite our approbation or dislike, to search for some common principle, on which this variety of sentiments might depend. And though they might have sometimes carried the matter too far, by their passion for some general principle; it must, however, be confessed, that they are excusable in expecting to find some general principles, into which all the vices and virtues were justly to be resolved (EHU 15/1.15).

This passage from EHU 1 voices a similar thought about the generality of explanations as we've seen about their simplicity – it's good, but you can go wrong by focusing on it. The same thought is visible in the first paragraph of Hume's essay 'The Sceptic'.

I have long entertained a suspicion, with regard to the decisions of philosophers upon all subjects, and found in myself a greater inclination to dispute, than assent to their conclusions. There is one mistake, to which they seem liable, almost without exception; they confine too much their principles, and make no account of that vast variety, which nature has so much affected in all her operations. When a philosopher has once laid hold of a favourite principle, which perhaps accounts for many natural effects, he extends the same principle over the whole creation, and reduces to it every phænomenon, though by the most violent and absurd reasoning. Our own mind being narrow and contracted, we cannot extend our conception to the variety and extent of nature; but imagine, that she is as much bounded in her operations, as we are in our speculation.¹²

The search for general explanations, as with the search for simple ones, is in Hume's view a normal, we might say natural, thing, which is not itself blamable. However, it can lead one astray in much the way that the search for simple explanations can lead one astray.

Much as with the worry about simplicity, the worry about generality sits in the texts alongside some passages that praise the search for general explanations. See for instance the following at the end of EPM 3.

It is entirely agreeable to the rules of philosophy, and even of common reason; where any principle has been found to have a great force and energy in one instance, to ascribe to it a like energy in all similar circumstances. This indeed is Newton's chief rule of philosophizing (EPM 204/3.48).

Hume is referring to Newton's "Rules for the study of natural philosophy" from the start of Book 3 of the *Principia*.¹³ Newton's second and third rules are that "*the causes assigned to natural effects of the same kind must be, so far as possible, the same*", and that "*Those quantities of bodies that cannot be intended and remitted [i.e., qualities that cannot be increased and diminished] and that belong to all bodies on which experiments can be made should be taken as qualities of all bodies universally*".¹⁴ Newton suggests with his second rule that effects of a given type should have a general explanation, and with his third rule that we ought to take the rest of the world to act according to the same general principles as the bodies we experiment on. Both rules emphasize the search for general explanations that cover many events. Hume is seemingly happy to endorse this aspect of Newton's approach, despite having some worries about how the search for general explanations can lead one astray.¹⁵

5. Worries about simplicity and generality in the work of Hutcheson, Smith, and Reid

Concerns about the pursuit of simplicity (and indeed of generality) are not idiosyncratic to Hume. Similar worries exist in the works of Hutcheson, Smith, and Reid. The worry about simplicity appears in Hutcheson's work when he discusses those who would explain morality in terms of self-interest. Indeed, whatever exactly we take the overall story about Hutcheson's influence on Hume to be, this is one area in which there is an apparently very close connection between the arguments of Hutcheson and Hume. Thus we see Hutcheson giving the following argument, using the very same phrase, "love of simplicity", that Hume uses.

Some strange Love of *Simplicity* in the Structure of human Nature, or Attachment to some favourite *Hypothesis*, has engag'd many *Writers* to pass over a great many *Simple Perceptions*, which we may find in our selves ... Had they ... consider'd our *Affections* without a previous Notion, that they were all from *Self-Love*, they might have felt an *ultimate Desire* of the Happiness of others as easily conceivable, and as certainly implanted in the human Breast, tho perhaps not so strong as *Self-Love*.¹⁶

That passage provides an almost exact parallel to Hume's in EPM Appendix 2, diagnosing the attachment to simplicity as a key cause of the attachment to false theories that explain morality using self-interest. Hutcheson in fact gives two diagnoses: that one, and another in terms of "Attachment to some favourite *Hypothesis*", a sort of non-rational holding on to a preferred view and prejudging the issue as a result.

In other passages we can see Hutcheson engaging with self-interest theorists in more detail, and making the supporting case that this simplifying analysis gets the wrong answers. One thing that Hutcheson does, in these replies to those who base morality on self-interest, is to emphasize the richness of our moral life. There's the phenomenon as described by self-interest theorists, and no doubt that describes some actual behaviour. But then there's the behaviour they purported to analyse, which is subtly but importantly different.¹⁷ Hutcheson is thus convinced that explanations of morality in terms of self-interest are wrong. But as we saw above, he goes beyond these objections to explain what lead self-interest theorists astray. And one of the explanations he offers invokes their love of simplicity. Seeking a simple theory, they were lead to one that was simpler than the truth.

This diagnosis of moral theorists' errors in terms of their attachment to simple theories, which we've seen in the work of Hutcheson and Hume, did not end there. There are very similar arguments in the work of Adam Smith and Thomas Reid. Smith voices his worries about the search for simplicity and generality in *The Theory of Moral Sentiments*, in his discussion of Epicurean approaches to morality.

By running up all the different virtues to this one species of propriety, Epicurus indulged a propensity, which is natural to all men, but which philosophers in particular are apt to cultivate with a particular fondness, as the great means of displaying their ingenuity, the propensity to account for all appearances from as few principles as possible. And he, no doubt, indulged this propensity still further, when he referred all the primary objects of natural desire and aversion to the pleasures and pains of the body. The great patron of the atomical philosophy, who took so much pleasure in deducing all the

powers and qualities of bodies from the most obvious and familiar, the figure, motion, and arrangements of the small parts of matter, felt no doubt a similar satisfaction, when he accounted, in the same manner, for all the sentiments and passions of the mind from those which are most obvious and familiar (Smith, TMS VII.ii.2.14).¹⁸

Smith had previously characterized Epicurus as having “the most ancient of those systems which make virtue consist in prudence” (VII.ii.2.1), and as thinking that prudence was “the source and principle of all the virtues” (VII.ii.2.8). Prudence is not, however, an end in itself in this system, but a means to ends, to pleasure, the avoidance of pain, and “our own ease and tranquility, the great and ultimate objects of all our desires” (VII.ii.2.11). Smith himself grants that there’s something to what Epicurus says. People do indeed want, for instance, “to be reckoned sober, temperate, just, and equitable”, and people can often be motivated away from improper behaviour “by representing the folly of their conduct, and how much they themselves are in the end likely to suffer from it” (VII.ii.2.13). Where Epicurus has gone wrong it is to take this “one species of propriety”, namely doing what will have good consequences for yourself, and taking it to be the only species of propriety.

Smith’s discussion of Epicurus serves some of the same purposes as does Hume’s appendix 2 to EPM, and attacks some of the same targets. And Smith explains Epicurus’s error in much the same way that Hume explained the errors of those who explain morality by self-love. Epicurus has tried to have as few basic explanatory principles as possible – i.e., as simple a theory as possible – and has ended up with a view simpler than the true view. This desire for simplicity is, Smith agrees with Hume, perfectly natural. Nevertheless, thinks Smith, we can err by overindulging it, and end up with a view with two few basic sorts of

motivation (just pleasure and pain) and too few grounds of propriety (just long-term self-interest).

We might read this error as one of over-generalizing – taking some true claims about prudence and its propriety and claiming that they explain all of propriety – rather than one of over-simplifying. The precise lines between these two causes of error is hard to make out. But Smith is clearly worrying in a Humean way about the problems arising from the focused pursuit of something often taken to be a positive feature of an explanation: in this case, having as few basic explanatory principles as possible.¹⁹ And like Hume and Hutcheson, Smith voices this worry in trying to explain why philosophers have been lead into the error of trying to explain all of morality in terms of self-interest.²⁰

Thomas Reid expresses a similar worry about the errors to which philosophers are lead by the search for simple theories in his *Essays on the Intellectual Powers of Man*.²¹ In a discussion of causes of error, he highlights “love of simplicity” as one such cause. Elsewhere in that work, he appears to criticize Descartes for erring because of that love of simplicity: an interesting case of the criticism being extended to something other than egoistic theories of morality.²²

Chapter VIII of Reid’s Essay VI, ‘Of Judgement’, is ‘Of Prejudices, the Causes of Error’. Reid begins the chapter by explicitly associating his discussion with that of Bacon in *De augmentis scientiarum* and the *New Organon* (EIP 527), though he does acknowledge that he talks about some causes of error that Bacon does not.²³ In particular, Reid follows Bacon’s division of causes of error into four types, Bacon’s four sorts of idols.

In the *New Organon*, Bacon describes four types of idols, persistent causes of error. He divides these into four types: idols of the tribe, the cave, the marketplace, and the theatre.

Idols of the tribe are “founded in human nature itself”.²⁴ And in the first aphorism in which Bacon discusses the idols of the tribe, he appears to be talking about tendencies to over-generalize and over-simplify.

The human understanding from its own peculiar nature willingly supposes a greater order and regularity in things than it finds, and though there are many things in nature which are unique and full of disparities, it invents parallels and correspondences and non-existent connections. Hence those false notions that *in the heavens all things move in perfect circles* and the total rejection of spiral lines and dragons (except in name). Hence the element of fire and its orbit have been introduced to make a quaternion with the other three elements, which are accessible to the senses. Also a ratio of ten to one is arbitrarily imposed on the elements (as they call them), which is the ratio of their respective rarities; and other such nonsense. This variety prevails not only in dogmas but also in simple notions.²⁵

One way in which we tend to go wrong is by thinking that things are more ordered and regular than they really are. Thus our stories about the world are simplified, and do not reflect the real complexity that is there. Moreover, we tend to want to express theories in simple ways, and using simple explanans: using circles rather than more complex movements, for example.

Reid himself, following Bacon in the general scheme but not in all of the details, lists six idols of the tribe. The third of these is “the love of simplicity” (EIP 530).²⁶

Men are often lead into error by the love of simplicity, which disposes us to reduce things to a few principles, and to conceive a greater simplicity in nature that there really is.

To love simplicity, and to be pleased with it wherever we find it, is no imperfection, but the contrary. It is the result of good taste. We cannot but be pleased to observe that all the changes of motion produced by the collision of bodies, hard, soft, or elastic, are reducible to three simple laws of motion, which the industry of Philosophers has discovered (Reid, EIP 530).

Reid, like Hume and Smith, does not completely reject the search for simple explanations. But like them, he thinks that this reasonable goal can be sought too strenuously, leading one into error. He's not recommending that we search for complex theories, or even that we stop valuing simplicity: "To love simplicity ... is the result of good taste". But he is urging that we be very careful in our search for simple explanations.

Reid seems to have though that Descartes went astray in this way. Reid makes comments of this sort twice in EIP. The first comment, earlier in EIP, concerns the foundations of knowledge and science. The second comment, in the same chapter as the passage above, focuses on the popularity of Cartesian physics.

The first comment runs as follows.

In this state of universal doubt, that which first appeared to him to be clear and certain, was his own existence. Of this he was certain, because he was conscious that he thought, that he reasoned, and that he doubted. He used this argument, therefore, to prove his own existence, *cogito ergo sum*. This he conceived to be the first of all truths, the foundation-stone upon which the

whole fabric of human knowledge is built, and on which it must rest. And as ARCHIMEDES thought, that if he had one fixed point to rest his engines upon, he could move the earth; so DES CARTES, charmed with the discovery of one certain principle, by which he emerged from the state of universal doubt, believed that this principle alone would be a sufficient foundation on which he might build the whole system of science. He seems therefore to have taken no great trouble to examine whether there might not be other first principles, which, on account of their own light and evidence, ought to be admitted by every man of sound judgment. The love of simplicity, so natural to the mind of man, lead him to apply the whole force of his mind to raise the fabric of knowledge upon this one principle, rather than seek a broader foundation (EIP 115).

This passage revisits some familiar themes. Descartes had, we're told, a love of simplicity. Indeed, this is a natural love to have. However, it can lead one astray. Thus Descartes, having found one foundational principle, was lead to try to found all knowledge on that one principle, rather than looking to see whether there were several. The natural preference for simplicity, Reid implies, ought to be watched carefully, lest it lead one into such excesses. At the very least, Descartes ought to have thought harder than he did about whether there were also other principles.

Reid's second comment of this sort about Descartes starts in similar territory, but quickly shifts its focus to the popularity of Cartesian physics.

Of all the systems we know, that of DES CARTES was most remarkable for its simplicity. Upon one proposition, *I think*, he builds the

whole fabric of human knowledge. And from mere matter, with a certain quantity of motion given it at first, he accounts for all the phænomena of the material world.

The physical part of this system was mere hypothesis. It had nothing to recommend it but its simplicity; yet it had force enough to overturn the system of ARISTOTLE, after that system, had prevailed for more than a thousand years.

The principle of gravitation, and other attracting and repelling forces, after Sir ISAAC NEWTON had given the strongest evidence of their real existence in Nature, were rejected by the greatest part of Europe for half a century, because they could not be accounted for by matter and motion. So much were men enamoured with the simplicity of the Cartesian system (EIP 532-3).

Reid here uses love of simplicity to explain why Cartesian physics displaced Aristotelian physics, and also why it was so hard for Newtonian physics to displace Aristotelian. Notice just how much force Reid attributes to the love of simplicity. Simplicity, he says, was the only thing in favour of Descartes's physics – yet that alone was enough to see it widely adopted. And later on Newton had actual evidence on his side, yet that was outweighed in the minds of many by the simplicity of the Cartesian system. It's not so much Descartes's own love of simplicity that's in question, as his audience's. The love of simplicity is, on Reid's account, natural to us all. The error of giving simplicity too much weight is also widespread. Indeed Reid goes straight on to accuse Newton too of making claims based more on the love of simplicity than "real evidence" (EIP 533).

What sort of simplicity does Reid have in mind? The simplicity of Cartesian epistemology is principally that of having few principles. The simplicity in the physics comes from its using “mere matter, with a certain quantity of motion given it at first”. That is, there are only one or two basic sorts of thing in the world. Moreover, they themselves are simple things; matter itself is not something with a complex structure. Elsewhere in his discussion of errors arising from a focus on simplicity, Reid talks about how “It was long believed, that all the qualities of bodies, and all their medical virtues, were reducible to four” (EIP 532). Overall then, Reid seems to focus on the the simplicity of having the fewest basic things, or kinds of things, in one’s picture of the world.

Note too that, in his discussion of causes of error, Reid also talks about what I called above the worry about over-generalizing. This he calls a “general prejudice” that “arises from a disposition to measure things less known, and less familiar, by those that are better known and more familiar” (EIP 529). Reid grants that there’s a good sort of reasoning here, but also points out that it can be taken too far, and leaves us with the need to make tricky judgments in individual cases about whether our reasoning is too tenuous.

This [the above-mentioned disposition] is the foundation of analogical reasoning, to which we have a great proneness by nature, and it indeed we owe a great part of our knowledge. It would be absurd to lay aside this kind of reasoning altogether, and it is difficult to judge how far we may venture on it.

The bias of human nature is to judge from too slight analogies (EIP 529).

Reid lists various errors of this sort. Some are everyday: because we tend to think that others are like ourselves, selfish people think that others’ apparent benevolence is just concealing self-interested motives.²⁷ Other examples are more philosophical. Indeed, Reid thinks that

“the theories of ideas and impressions have so generally prevailed” (EIP 530) because of a mistake of this sort.

There is a disposition in men to materialize every thing, if I may be allowed the expression: that is, to apply the notions we have of material objects to things of another nature. Thought is considered as analogous to motion in a body; and as bodies are put in motion by impulses, and by impressions made upon them by contiguous objects, we are apt to conclude that the mind is made to think by impressions made upon it, and that there must be some sort of contiguity between it and the objects of thought (EIP 530).

Thus, on Reid’s account, extending a model that works for bodies to minds has led to errors. And these errors in over-generalizing apply in religious matters too, leading people to think of God as like humans in too many ways, even suffering from “human passions and frailties” (EIP 530).

That awareness of the religious aspect of these discussions of method and error is also present in Reid’s discussions of simplicity. For, someone might have thought, we have reason to believe that God will have made a simple world (say, one that operates according to a few simply storable laws). Given that, one might then think that simplicity itself is a sort of evidence, every bit as good as, say, Newton’s evidence for the existence of gravity. However, Reid warns, our expectation of the simplicity of the world will not really lead us far in our investigations: “if we hope to discover how Nature brings about its ends, merely from this principle, that it operates in the simplest and best way, we deceive ourselves, and forget that the wisdom of nature is more above the wisdom of man, than man’s wisdom is above that of a child” (Reid, EIP 530-1). Here we have an analogue of the secular point about method that

we've seen above. Thinking in religious terms, we have a reason to expect simplicity. But Reid warns us not to do too much with this expectation of simplicity, just as he and others warn us not to do too much with the natural preference for simple explanation. Those expectations and preferences are not exactly wrong, but they should be exercised with great care, as they're clearly capable of leading us astray.²⁸

6. Conclusion

I began with a puzzle about Hume's apparently varying thoughts about the simplicity of explanations. Hume's thought turns out to have been consistent in one area here. Both in the *Treatise* and in EPM he argues against theories of the mind that attribute overly complex thoughts to us all. About the more general methodological question, whether simplicity is a positive feature of explanations, worries emerge in Hume's thinking over time (as they also do about whether generality of explanations is a positive feature). That's not to say that Hume ceased to think that simplicity was a positive feature of explanations. What Hume thinks we need, it seems, is good judgment about when we are going too far in our search for simple explanations.

These worries about simplicity are not unique to Hume. We can see versions of it in the work of Hutcheson, Smith, and Reid as well. Hume, Hutcheson, and Smith make the point in criticizing view that explain morality in terms of self-interest. Reid makes the point in other areas, and explains, for instance, the acceptance of Cartesian physics as resulting from Descartes's audience's preference for simplicity. Hutcheson, Hume, and Reid all use the same phrase "love of simplicity" in characterizing the attitude that has lead philosophers astray. And Hume, Smith, and Reid (at least) all seem to think that approving of simplicity is

natural, maybe indeed a good thing. But they nevertheless also think that the preference for simple explanations can lead one astray.

Thinking about discussions of method in seventeenth- and eighteenth-century philosophy, we might well think of a general trend of support and advocacy for simplicity and generality of explanations. Some of this is associated with a push towards intelligible, mechanical explanations. Descartes belongs in this category, as Reid argues, but so does Boyle. Newton, with his rules of reasoning, and later on Hume in the *Treatise*, are also part of the general trend. But there is also a counter-trend of worrying about simplicity and generality, illustrated by Bacon, Hutcheson, Hume in EPM, Smith, and Reid. These philosophers do not reject the call to seek simple and general explanations entirely. Rather they point out that this search needs to be approached cautiously, can be taken too far, etc. They offer no precise way to measure and balance the various positive and negative qualities of explanations. Nevertheless, their worries about the search for simple and general explanations are clearly articulated, and worth attending to.

¹ John P. Wright, *The Sceptical Realism of David Hume* (Minneapolis: University of Minnesota Press, 1983), 194.

² Quoted from Richard Westfall, “Unpublished Boyle papers relating to scientific method – II”, *Annals of Science* 12 (1956) 103-17. On Hume’s likely knowledge of Boyle while a student, see James Moore, “Hume and Hutcheson” in M.A. Stewart & John P. Wright (ed.), *Hume and Hume’s Connexions* (University Park, PA: Pennsylvania State University Press, 1995), 23-57, especially 32.

³ The bibliography of Elliott Sober, *Simplicity* (Oxford: Clarendon, 1975) is a useful guide to literature from the 1930s to the 1970s.

⁴ For two recent discussions see Roger White, “Why favour simplicity?”, *Analysis* 65 (2005) 205-10, and Michael Huemer, “When is parsimony a virtue?”, *Philosophical Quarterly* (2008), published online before appearing in the print journal, DOI: 10.1111/j.1467-9213.2008.569.x.

⁵ I use, and give page references to, David Hume, *A Treatise of Human Nature*, edited by L.A. Selby-Bigge and P.H. Nidditch (Oxford: Clarendon, 1978), to which I refer using the abbreviation ‘T’, and David Hume, *Enquiries concerning Human Understanding and the Principles of Morals*, edited by L.A. Selby-Bigge and P.H. Nidditch (Oxford: Clarendon, 1975), to which I refer using the abbreviations ‘EHU’ and ‘EPM’. I also give section and paragraph references to the newer Oxford editions, i.e., *A Treatise of Human Nature*, edited by David Fate Norton and Mary J. Norton (Oxford: Oxford University Press, 2000), *An Enquiry concerning Human Understanding*, edited by Tom L. Beauchamp (Oxford: Oxford

University Press, 1999), and *An Enquiry concerning the Principle of Morals*, edited by Tom L. Beauchamp (Oxford: Oxford University Press, 1998).

⁶ For instance, in the introduction to his edition of Hume's *Enquiries*, L.A. Selby-Bigge argues that although Hume had started out in the *Treatise* thinking that simpler theories were to be preferred in moral psychology, as in other realms in which one gives philosophical explanations. But Hume came to think, with Hutcheson, that an excessive preference for simplicity had lead previous philosophers astray in this realm. Indeed, the later Hume thought the earlier Hume had been lead astray by this very preference. This view of Selby-Bigge's points to the larger debates about how Hume's views in the *Treatise* relate to his views in the *Enquiries*. Recent contributions to these debates include Peter Millican, "The Context, Aims, and Structure of Hume's First *Enquiry*" in Peter Millican (ed.), *Reading Hume on Human Understanding* (Oxford: Clarendon, 2002), and Kate Abramson, "Sympathy and the Project of Hume's Second Enquiry", *Archiv für Geschichte der Philosophie* 83 (2001) 45-80. Millican's edited volume also includes a critical survey of the literature on EHU, in which Millican discusses literature on the *Treatise-Enquiry* relationship at 421-4.

⁷ John P. Wright, *The Sceptical Realism of David Hume* (Minneapolis: University of Minnesota Press, 1983), 194.

⁸ There's some apparent thought that simplicity is a positive feature of explanations in the *Enquiry concerning Human Understanding* too. In EHU 4 Hume makes the following remarks about the search for simple and general principles. "It is confessed, that the utmost effort of human reason is to reduce the principles, productive of natural phenomena, to a greater simplicity, and to resolve the many particular effects into a few general causes, by

means of reasonings from analogy, experience, and observation” (EHU 30/4.1.12). This might seem just to a report of what people do. But the report is of an enterprise that Hume could hardly be said to criticize here.

⁹ See Bernard Mandeville, “An Inquiry into the Origin of Moral Virtue”, in *The Fable of the Bees*, edited by F.B. Kaye (Oxford: Clarendon, 1924), 1.41-57.

¹⁰ Thomas Hobbes, *Part I of De Corpore* (New York: Abaris Books, 1981), translated by A.P. Martinich, 287-9, with the emphasis changed. This is from chapter 6, section 1 of *De Corpore*.

¹¹ For some discussion of this argument, see the comments of C.D. Broad in *Five Types of Ethical Theory* (London: Routledge & Kegan Paul, 1930), 102-4. Broad makes two objections. The first is that there is a “tacit assumption,” which we have no reason to accept, that “all fundamental emotional and conative dispositions which a man owns must be open to inspection by him simply because they are *his*” (Broad, 103). Secondly, Broad objects to an ambiguity. He grants Hume that strong emotions can’t be caused by complex reasoning on the part of the subject experiencing the emotion. But he argues that such cases might nevertheless involve complexity: complexity in the reasoning of a psychologist trying to figure out why the subject who felt such an emotion, but also perhaps the complexity of “complex *non-rational* causes” (Broad, 103) that the psychologist finds in the subject.

¹² David Hume, *Essays, Moral, Political, and Literary*, edited by Eugene F. Miller (Indianapolis: Liberty Fund, 1987), 159.

¹³ For discussion of the extent of Hume’s Newtonianism see Eric Schliesser, “Hume’s Newtonianism and Anti-Newtonianism”, *The Stanford Encyclopedia of Philosophy* (Summer

2007 Edition), Edward N. Zalta (ed.), URL =

<<http://plato.stanford.edu/archives/sum2007/entries/hume-newton/>>.

¹⁴ Isaac Newton, *The Principia*, translated by I. Bernard Cohen and Anne Whitman (Berkeley: University of California Press, 1999) . Newton proposes and discusses four rules. The first rule is that “*No more causes of natural things should be admitted than are both true and sufficient to explain their phenomena*”, and the fourth is that “*In experimental philosophy, propositions gathered from phenomena by induction should be considered either exactly or very nearly true notwithstanding any contrary hypotheses, until yet other phenomena make such propositions either more exact or liable to exceptions*”.

¹⁵ In early editions of EPM Hume referred explicitly to the second rule, but revised versions changed the formulation (EPM, Beauchamp edition, 215).

¹⁶ Francis Hutcheson, *An Essay on the Nature and Conduct of the Passions and Affections, with Illustrations on the Moral Sense*, edited by Aaron Garrett (Indianapolis: Liberty Fund, 2002), 5-6. This passage is also seen at D.D. Raphael (ed.), *British Moralists: 1650-1800* (Indianapolis: Hackett, 1991), 1.300. Hutcheson’s *Essay* was first published in 1742, the first edition of EPM in 1751.

¹⁷ An example of Hutcheson’s use of such an argument is his discussion of an analysis of shame in terms of advantage and hurt, i.e. in terms of self-interest. See Francis Hutcheson, *An Inquiry into the Original of our Ideas of Beauty and Virtue*, edited by Wolfgang Leidhold (Indianapolis: Liberty Fund, 2004), 150-1. (That’s treatise 2, section 5, part 3, a passage that’s also seen at Raphael, *British Moralists* 1.291.) If we try to fit shame into the self-interest framework, perhaps we will explain it as arising from the fear of loss. Thus shame would be like a merchant’s concealing a bad business deal because news of it might impair

his ability to make future deals. But the feelings associated with what the merchant does are not like the feelings of shame. Hutcheson goes on to give further examples of differences between the two feelings.

¹⁸ Adam Smith, *The Theory of Moral Sentiments*, edited by D.D. Raphael and A.L. Macfie (Indianapolis: Liberty Fund, 1982).

¹⁹ Compare Eric Schliesser's argument that "Smith attacks misguided abstraction in social science not simplicity" citing various passages in TMS, and quoting a passage from "Of the external senses" that seems to take simplicity as a reason for a theory. Eric Schliesser, "Realism in the Face of Scientific Revolutions: Adam Smith on Newton's Proof of Copernicanism", *British Journal for the History of Philosophy*, 13 (2005) 697-732. I quote from p708, n37. Schliesser refers to TMS 93, 134-5, 313-4, 319, and EPS 137.) If we do take the worry here to be about simplicity, this can nevertheless be reconciled with Schliesser's observation that Smith praises simplicity elsewhere. The solution will lie in seeing that Smith does not here completely repudiate the desire for simple explanations. Rather he, as Hume, wants to caution us about the search for simple explanations at the same time as seeing the desire for simple explanations as natural, even praiseworthy if done with care.

²⁰ I say 'all of' because Smith seems to grant that there is some propriety to prudence. For a discussion of this, advocating the view that Smith gives a lesser status to the virtue of prudence, see D.D. Raphael, *The Impartial Spectator: Adam Smith's Moral Philosophy* (Oxford: Clarendon, 2007), 67-8.

²¹ Thomas Reid, *Essays on the Intellectual Powers of Man*, edited by Derek R. Brookes (University Park: Pennsylvania State University Press, 2002). Henceforth 'EIP'.

²² Reid's comments are briefly discussed by Keith Lehrer, *Thomas Reid* (London: Routledge, 1989) 77, 178.

²³ For more discussion of Reid's relationship to Bacon, see Alan Wade Davenport, "Reid's Indebtedness to Bacon", *Monist* 70 (1987), 496-507.

²⁴ Francis Bacon, *The New Organon*, edited by Lisa Jardine and Michael Silverthorne (Cambridge: Cambridge University Press, 2000), I.XLI, p41

²⁵ Bacon, *New Organon* I.XLV, p42.

²⁶ The others are : (1) being "led too much by authority" (EIP 528), (2) "a disposition to measure things less known, and less familiar, by those that are better known and more familiar" (EIP 529), (4) "the misapplication of our noblest intellectual power to purposes for which it is incompetent" (EIP 534), (5) the fact that "In avoiding one extreme, men are very apt to rush into the opposite" (EIP 536), and (6) the fact that "Mens judgments are often perverted by their affections and passions" (EIP 536).

²⁷ One might think – given the arguments seen above – that this conceals an explanation for why Hobbes and Mandeville went wrong. But Reid doesn't make that point here.

²⁸ A related passage in Hume's work is early in part 12 of his *Dialogues*, where Philo says that "one great foundation of the *Copernican* system is the maxim *that nature acts by the simplest methods, and chooses the most proper means to any end*; and astronomers often, without thinking of it, lay this strong foundation of piety and religion. The same thing is observable in other parts of philosophy; and thus all the sciences almost lead us insensibly to acknowledge a first intelligent Author; and their authority is often so much the greater as they do not directly profess that intention" (*Dialogues Concerning Natural Religion*, edited by Richard Popkin (Indianapolis: Hackett, 1988) Part XII, pp77-8). The reasoning here

connects simplicity and religion. However, in addition to the general difficulties in interpreting the *Dialogues*, there are particular difficulties in interpreting what Philo says in part 12. Whether or not we take Philo as more or less straightforwardly being Hume's spokesman in the *Dialogues*, Philo's statements in part 12 are in some considerable tension with his earlier ones. Thus it is particularly hard to know how to understand Hume's attitude toward this passage.