

THE SCIENCE OF MAN AND THE INVENTION OF USABLE TRADITIONS¹

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Summary

In this paper I scrutinize three sets of passages by David Hume. The first is from the Introduction to *A Treatise of Human Nature*; the second is from the ‘An Abstract of a Book lately Published, entitled, A Treatise of Human Nature,’; the third is really a collection of widely scattered vignettes from *The History of England from the Invasion of Julius Caesar to the Revolution in 1688 (1754-1762)*. I argue that in these works Hume creates several distinct intellectual traditions leading up to him. I argue that the changes among them reflect, in part, tactical moves in response to changed circumstances and, in part, Hume’s changed understanding of the epistemic virtues underlying his project’s relationship to the ‘system’ of science. For example, I trace how high praise for Bacon and Locke gets replaced by praise for Galileo, Boyle, and Newton. While this little noticed aspect of Hume’s thought has independent interest, focusing on Hume’s historiographical strategy also helps illuminate Hume’s evolving understanding of the ‘science of man’ within the system of sciences.

Introduction

In this paper I scrutinize three sets of passages by David Hume. The first is from the Introduction to *A Treatise of Human Nature*;² the second is from the ‘An Abstract of a Book lately Published, entitled, A Treatise of Human Nature,’ (hereafter Abstract); the third is really a collection of widely scattered vignettes from *The History of England from the Invasion of Julius Caesar to the Revolution in 1688*.³ I argue that in these works Hume creates several distinct intellectual

¹ This paper was inspired by reflection on my exchanges with Silvia Manzo over her ‘David Hume and Copernicanism’ presented at the Hume Society, Halifax, August 2009; it is also kind of a companion piece to Schliesser E., ‘The Obituary of a Vain Philosopher: Adam. Smith’s Reflections on Hume’s Life’, *Hume Studies* 29 (2003) 327–362, where, among other things, I argued that in ‘My Own Life,’ Hume attempts to fix the canon of his writings.

² Hume D, *A Treatise of Human Nature* (1739–1740), ed. David Fate Norton and Mary Norton (Oxford: 2007). hereafter *Treatise*. This edition includes Hume’s Abstract. I refer to both texts by paragraph (e.g., T 1.3.14.24).

³ Hume D, *The History of England from the Invasion of Julius Caesar to the Revolution in 1688* (Indianapolis: 1983), ed. and introd. William B. Todd, 6 vols; 1754–1762, but revised through the end of his life; hereafter *History*.

traditions leading up to him. I argue that the changes among them reflect, in part, tactical moves in response to changed circumstances and, in part, Hume's changed understanding of the epistemic virtues underlying his project's relationship to the 'system' of sciences. For example, I trace how high praise for Bacon and Locke gets replaced by praise for Galileo, Boyle, and Newton. While this little noticed aspect of Hume's thought has independent interest, focusing on Hume's historiographic strategy also helps illuminate Hume's evolving understanding of the 'science of man' within the system of sciences.

In the next section I show how in the *Treatise* Hume presents himself as a modern Socrates simultaneously heir to and transformer of a distinctively and fairly recent English tradition. I also explain the function of Hume's invention. In the following section I call attention to some important shifts between the *Treatise* and its summary in the Abstract. In the final section I show that in the *History* Hume invents himself as a heir to an entirely different, more cosmopolitan tradition which has developed over many centuries. Nevertheless, in the *History* Hume re-uses the language of 'true philosophy' to subtly assert the primacy of the science of man.⁴

The New Socrates Invents Tradition

The main point of my paper is to provide a careful analysis of the following lines. My motivation for doing so is that they are interesting in their own right, but they can shed some light on Hume's understanding of the 'science of man' with his system of sciences. I quote the main passage before I comment:

'Tis is no astonishing reflection to consider, that the application of experimental philosophy to moral subjects shou'd come after that to natural at the distance of above a whole century; since we find in fact, that there was about the same interval betwixt the origins of these sciences; and that reckoning from THALES to SOCRATES, the space of time is nearly equal to that betwixt my Lord Bacon and some late philosophers in England, who have begun to put

⁴ One methodological clarification: while I use the language of 'invention,' in the body of argument I am less interested in characterizing Hume's mental state or intentions than I am in how Hume 'presents' himself to a knowledgeable *reader*. This is one reason why in what follows I draw on Hume's published writings and historical events, but not, generally, on his (more private) letters (or biographical materials).

the science of man on a new footing, and have engag'd the attention, and excited the curiosity of the public. So true it is, that however other nations may rival us in poetry, and excel us in some other agreeable arts, the improvements in reason and philosophy can only be owing to a land of toleration and of liberty. Nor ought we to think, that this latter improvement in the science of man will do less honour to our native country than the former in natural philosophy, but ought rather to esteem it a greater glory, upon account of the greater importance of that science, as well as the necessity it lay under of such a reformation.⁵

This passage has received remarkable little attention. I make three points that are introductory to my historiographical exploration.

First Hume is addressing a *national* 'public' (note the repeated 'us' and 'we' in the context of 'our native country,' and 'other nations'). Even though contemporary scholars tend to classify Hume as a member of the 'Scottish' Enlightenment, Hume's *Treatise* was published in London and is probably addressing itself to the public of a then not so ancient United Kingdom since the Union (of parliaments) of 1707. In the (oft ignored) 'Advertisement' to the *Treatise* Hume explains why he presents to the public only two (on the 'understanding and passions') out of 'all the subjects' that are 'plann'd out' to himself 'in the Introduction' (*Treatise*, advertisement). Besides the internal cohesion of the topics, Hume mentions that he 'was willing to take advantage of this natural division, in order to try to taste the of the public' (*Treatise*, advertisement). Now Hume is being ambiguous here. To 'perform a trial' means doing a test or an experiment.⁶ But is Hume i) testing whether the public's response says something about the quality of his work or ii) testing the quality of the taste, or, 'judgment' of the public, or (more farfetched, perhaps) iii) trying to cultivate/create a new public? The ambiguity is not resolved but only deepened by the last line of the advertisement: 'The approbation of the public of the public I consider as the greatest reward of my labours; but am determin'd to regard its judgment, whatever it be, as my best instruction.' Whatever Hume intended, in one respect the trial was, as most people know, no success. In one of the very last pieces he wrote, his autobiographical 'My

⁵ Hume, *Treatise* Introduction, 7–8.

⁶ This reveals something of the judicial origins of the language of modern science (even if trials may have their origin in duels, which trial the will of God, etc). See Shapin S., *A Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago: 1994).

Own Life,' Hume noted (with considerable exaggeration), 'Never literary attempt was more unfortunate than my *Treatise of Human Nature*. It fell dead-born from the press, without reaching such distinction as even to excite a murmur among the zealots [i.e., intolerant Christians].'⁷

Above I suggested that Hume probably addressed himself to a public that is committed to the union. But one might worry that he only mentions 'England' not Scotland. The objection gathers force from the fact that in the dramatic 'conclusion' of Book I of the *Treatise*,⁸ he admits that he wishes 'not to make philosophers' out the 'many honest gentlemen' in 'England, in particular'.⁹ At most he wishes to bring 'the science of man...a little more into fashion'.¹⁰

Nevertheless, there is evidence that in the Introduction to the *Treatise* with 'England,' Hume did mean the whole union as in the places where English is spoken. For Hume adds his own footnote to the afore-quoted phrase, 'my Lord Bacon and some late philosophers in England;' the footnote reads, 'Mr. Locke, my Lord Shaftesbury, Dr. Mandeville, Mr. Hutcheson, Dr. Butler, etc.' Locke, Shaftesbury, and Butler were English. Mandeville, a born Dutchman, may qualify as an honorary Englishman because most of his productive career in medicine and as controversial man of letters he lived and worked in and around London writing mostly in English. But the inclusion of Francis Hutcheson, who was born a Scottish Presbyterian in Ireland, educated in Glasgow, and after a considerable hiatus, returned to Glasgow, suggests the wider, Unionist, definition of 'England.'¹¹ I return to this five-some shortly. But first I explain interest in Hume's addressing a national audience.

The relevance of Hume's audience pertains to a second point about *Treatise*, intro, 7-8. Hume claims that 'toleration and liberty' are a necessary condition for 'improvements in reason and philosophy.' It is a bit hard to tell if Hume is being sincere or highly ironic here. For, the list includes Locke, who was a refugee in Holland (the *place* then known for its toleration and liberty!), and Mandeville, who sometimes thought it wiser to publish anonymously--his famous *Fable* was taken to court at least once. (Lest we forget: Hume's *Treatise* was also published

⁷ The book was evidently widely enough read to create forceful opposition against Hume's efforts to be appointed a university press.

⁸ Hume, THN 1.4.7.

⁹ Ibid. 1.4.7.14; I have conflated two sentences, but for present purposes this does not matter.

¹⁰ Ibid. 1.4.7.14.

¹¹ My argument allows that not all English speaking parts of the English empire are included. The nub is that Hume excludes non-English speaking authors that were part of a wider debate. For example, Butler refers to Rochefoucauld in the preface to his *Sermons* and Shaftesbury also alludes to him occasionally.

anonymously.) On the front page of the *Treatise*, Hume has a famous quote from Tacitus's *Histories* (here in the Nortons' translation): 'The rare good fortune of an age in which we may feel what we wish and say what we feel.'¹² Paul Russell has seen in this a nod to Spinoza's *Theological Political Treatise*. Either way, Russell nicely documents that the use of this quote signaled to some of Hume's contemporaries Hume's 'free thinking' intentions.¹³ Moreover, we know that before publication Hume removed what he calls the 'nobler parts' of the *Treatise*; he performed 'this piece of cowardice' partly in order to avoid controversy with Butler.¹⁴ So, it's hard to imagine Hume wholly believed that he lived in an age in which he may feel what he wishes and say what he feels; this is why I suspect he is flattering (or cultivating!) his public.

Third, the official point of the list of names is to support a kind of self-aggrandizing comparison of the form A:B=C:D, that is, Thales to Socrates is equal to Bacon to Hume. In particular, if Thales is the original founder of natural philosophy and Socrates the original founder of moral philosophy, Hume treats Bacon as re-founder of natural philosophy by being the first to introduce the experimental method to natural philosophy and himself as a Socratic re-founder to introduce experimental method to moral philosophy.¹⁵ In the *Treatise*, Hume nowhere again mentions Thales, Bacon, or Socrates.¹⁶ (Hume's account of Thales and Socrates is probably

¹² Even if we leave aside political matters, the focus on feeling (*sentire* in the Latin) resonates with Hume's substantive epistemic and moral doctrines.

¹³ Russell P., *The Riddle of Hume's Treatise: Skepticism, Naturalism, and Irreligion* (Oxford: 2008) 71ff.

¹⁴ See Hume's letter to Henry Home, later Lord Kames, December 1735, quoted in Millican P., *Reading Hume on human understanding: essays on the first Enquiry* (Oxford: 2002) 35.

¹⁵ Sandy Stewart objected that 'the relationship that matches 'Thales to Socrates' is 'Bacon to some late philosophers in England.' Hume sees himself as heir to and improver on those late philosophers, and therefore as the analogue of one or more of the intellectual *heirs* of Socrates, not of Socrates himself' (emphasis in the referee). If the objection stands, then Hume is in the position of a student (Plato?) of Socrates. But while attractive, this objection subtly misreads Hume's claim, which is 'that reckoning from THALES to SOCRATES, the space of time is *nearly equal* to that betwixt my Lord Bacon and some late philosophers in England,' (emphasis added). Between the death of Thales and Socrates' adulthood is 'distance of above a whole century'. Between the death of Bacon and the writings of, say, Locke (the oldest) of the 'late philosophers' is much less elapsed time. Bacon died in 1626; the publication of Hume's *Treatise* makes the analogy 'equal.'

¹⁶ In *The Natural History of Religion* (NHR) Hume treats Thales as a kind of pious Spinozist: 'It will be easy to give a reason, why *Thales*, *Anaximander*, and those early philosophers, who really were atheists, might be very orthodox in the pagan creed; and why *Anaxagoras* and *Socrates*, though real theists, must naturally, in ancient times, be esteemed impious. The blind, unguided powers of nature, if they could produce men, might also produce such beings as *Jupiter* and *Neptune*, who being the most powerful, intelligent existences in the world, would be proper objects of worship. But where a supreme intelligence, the first cause of all, is admitted, these capricious beings, if they exist at all, must appear very subordinate and dependent, and consequently be excluded from the rank of deities. *Plato* (de leg. lib. x.) assigns this reason for the imputation thrown on *Anaxagoras*, namely his denying the divinity of the stars, planets, and other created objects.' (N [ZZ].1, Bea 47; see also N 4.10). Thales and Anaximander are treated as proto-Spinozists with a twist by offering Deity-free cosmogony and without providence, yet not impious. I have consulted the version of the 1777 edition of Hume, D. *Essays and Treatises on Several Subjects*, London: Millar, as

influenced by Cicero's *Academica* as his modern editors suggest.)¹⁷ But Hume may have also been thinking of Anthony Collins' *A discourse of free-thinking: occasion'd by the rise and growth of a sect call'd free-thinkers*. Collins describes Socrates as follows

[T]he divinest Man to ever appear'd in the Heathen world, and to whose virtue and wisdom all ages since have done justice, was a very great *Free-Thinker*. He not only disbeliev'd the Gods of his Country, and the common creeds about them...but obtain'd a just notion of the Nature and Attributes of God, exactly agreeable to that which we have received by Divine Revelation, and became a True *Christian*...Christ, the first begotten, is nothing else but reason, of which all mankind are partakers...Socrates could not suppos'd to have made Notions, or Speculations, or Mysterys, any parts of his Religion, when he demonstrated [quoting Xenophon's *Works*] *demonstrated all Men to be fools who troubled themselves with Inquiry's into Heavenly things, and asked such Inquirers whether they had attain'd a perfect knowledge of human things, since they search'd into Heavenly things; or if they could think themselves wise in neglecting that which concern'd them, to employ themselves in that which was above their Capacity to understand* (123-26; emphasis in original; Collins goes on to describe Socrates' fate.)¹⁸

reproduced at www.Davidhume.org. By contrast, while Adam Smith agrees that Thales was the founders of one of the first 'philosophical sects' (Astronomy 3.6, 52), following the authority of Aristotle, Smith treats the accounts by Plutarch and Apuleius of Thales' astronomical discoveries as historical fictions, and presents Thales' cosmology as an anthropocentric and 'confused an account of things.' See 'The History of Astronomy,' 4.5, in Smith, Adam (1982) *Essay on Philosophical Subjects* (1795) ed. W. P. D. Wightman and J. C. Bryce, vol. III of the Glasgow Edition of the Works and Correspondence of Adam Smith, Indianapolis: Libertyfund, p. 56. For the significance of this difference see Eric Schliesser (ms) 'Hume, Smith, and the Posidonian Argument.'

¹⁷ In what follows I will characterize by way of Collins what might have attracted Hume to Socrates. But a referee has objected that it is unlikely that Hume would be modelling himself as a modern Socrates because in *The Natural History of Religion* Socrates is treated as a theist. Let's allow (in order not to complicate matters) that Hume's view of Socrates was stable throughout his life. In NHR all mentions of Socrates are treated in context as instances of the 'superstition' that Socrates faced (or of evidence of Xenophon's superstition). Moreover, as many commentators have noticed NHR embraces theism; so Hume's description of Socrates embracing 'real theism,' cannot be used as evidence that Hume saw an important difference between himself and Socrates. Of course, there is a sense in which the movement from Thales to Socrates in NHR is described as the development of an increasingly superstitious cosmogony.

¹⁸ Collins A. *A discourse of free-thinking: occasion'd by the rise and growth of a sect call'd free-thinkers* (London: 1713), 123-126; emphasis in original; Collins goes on to describe Socrates' fate. Russell, *The Riddle of Hume's Treatise* calls attention to this passage, although for slightly different purposes.

That is, Collins describes Socrates as somebody who privileged moral philosophy over natural philosophy because the former is more useful (recall, ‘concerned them’). Moreover, Collins treats Socrates as a sceptic about possible knowledge of celestial sphere.¹⁹ Hume may have also been attracted to Collins’ description of Socrates’ (Spinozistic) ridicule of anthropomorphizing God.²⁰ Of course, Bacon and Hume are treated as innovating experimental philosophers not mere copyists of Thales and Socrates. This is why one noted Hume scholar, John Wright, has sensibly linked this passage with the subtitle Hume’s *Treatise* (‘Being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects.’) Hume’s experimental method, then, has its origin in Baconian (and not Newtonian) science.²¹ And this is apparently confirmed by Hume’s claim in the *Abstract*, that the author of the *Treatise* ‘considers’ Lord Bacon ‘as the father of experimental physics’.²²

So, what to make of Hume’s fashioning himself as a kind of modern experimentalizing Socrates and why does he list ‘Mr. Locke, my Lord Shaftesbury, Dr. Mandeville, Mr. Hutcheson, Dr. Butler,’ in one group (not to mention, who might be included in that elusive ‘etc’)? I have five observations in response to these two questions. One modest point is that even ‘toleration and liberty’ require time and the successive interactions of several generations of thinkers to produce their desirable effect in the intellectual world. Second, in the *Treatise*, Hume’s explanation for the grouping is quite straightforward: these men have really two things in common: first they ‘begun to put the science of man on a new footing,’ and, second, they ‘have engag’d the attention, and excited the curiosity of the public.’ The latter point helps us see that in Hume claims there is already to some extent a ‘public’ for the *Treatise*.

But if Hume is the first to introduce the ‘experimental method’ into moral subjects, what is the new, but presumably not entirely solid footing that unites the five post-Baconian ‘English’ thinkers in the list? In the *Abstract* that Hume wrote of the *Treatise*, the answer to this

¹⁹ If one can show that the Humean philosopher avoids certain species of speculation, then, he is a kind of modern Socratic.

²⁰ See Collins, *Discourse* 123, and Collins’ reference to Plato’s *Euthyphro* on that page:
[http://books.google.nl/books?id=VqRbAAAAQAAJ&lpg=PA5&ots=qbEQryMm5G&dq=Anthony%20Collins%E2%80%9999%20\(1713\)%20A%20discourse%20of%20free-thinking%3A%20occasion'd%20by%20the%20rise%20and%20growth%20of%20a%20sect%20call'd%20free-thinkers&hl=nl&pg=PA124#v=onepage&q=Euthyphro:&f=false](http://books.google.nl/books?id=VqRbAAAAQAAJ&lpg=PA5&ots=qbEQryMm5G&dq=Anthony%20Collins%E2%80%9999%20(1713)%20A%20discourse%20of%20free-thinking%3A%20occasion'd%20by%20the%20rise%20and%20growth%20of%20a%20sect%20call'd%20free-thinkers&hl=nl&pg=PA124#v=onepage&q=Euthyphro:&f=false), accessed April 3, 2014.

²¹ Wright J., *The Skeptical Realism of David Hume* (Manchester: 1983), 188–197. This corrects my earlier blindness to this significant point!

²² Hume, *Abstract* 2.

question is that they founded ‘their accurate disquisitions of human nature entirely upon experience’.²³ This is a plausible answer, but (as I argue below) the Abstract needs to be treated with caution because there are also subtle differences between it and the *Treatise*.

Nevertheless, this answer might help explain the otherwise surprising omission of Hobbes in this list. I call the omission surprising for two reasons: a) Hobbes is the explicit and implicit target of four of the five listed thinkers (excepting Mandeville) on many matters; b) the same is true of Hume, who may have had Hobbes open at his writing desk at several places while composing the *Treatise*.²⁴ Yet, from Hume’s point of view, Hobbes’ approach is too rationalistic and too dogmatic. Evidence for this claim can be found in Hume’s mini-biography of Hobbes’ character in the *History*: ‘Though an enemy to religion, [Hobbes] partakes nothing of the spirit of scepticism; but is as positive and dogmatical as if human reason, and his reason in particular, could attain a thorough conviction in these subjects [i.e., politics and ethics].’²⁵ While we should be cautious in citing Hume’s *History* as evidence for views in the *Treatise* (I call attention to significant differences below) it fits nicely with his criticism of Hobbes’ ‘suppose’d *state of nature*’ as a ‘mere philosophical fiction, which never had, and never cou’d have any reality’.²⁶ According to Hume Hobbes is a dogmatic (and mistaken) rationalist in the science of man whose methodology is not based on experience. (Of course, Hume’s overall understanding of Hobbes is more complicated than this suggests, but that need not detain us here.)

The fourth point is more mischievous: Hutcheson and Butler would not have been pleased to be put in one list together with the scandalous Mandeville, who successfully revived the (Hobbesian) ‘selfish’ hypothesis and was their frequent target.

But the inclusion of Mandeville is also strategic, and this pertains to my final, fifth, point. Hume is *inventing* here an English-language tradition of moral philosophy at which he is a

²³ Ibid.

²⁴ See Hume’s treatment of justice, especially. (For discussion see Pack S. J. – Schliesser E., “Smith’s Humean Criticism of Hume’s Account of the Origin of Justice”, *Journal of the History of Philosophy* 44, 1 (2006) 47–63. Reid also has no doubt of Hume’s Hobbesian leanings in some respects, see Reid T., *Essays on the active powers of man*, printed for John Bell, and G. G. J. & J. Robinson (London: 1788) 437–438. One can claim this without accepting Paul Russell’s more far-reaching claims about the relationship between Hume and Hobbes.

²⁵ Hume, *History* Vol. 6. Chapter: *LXII*

Accessed from <http://oll.libertyfund.org/title/793/67353/1651015> on 2009-09-26

²⁶ Hume, *Treatise* 3.2.2.14; emphasis in original.

simultaneous natural (Socrates-like) endpoint and a new beginning.²⁷ I call him an ‘endpoint’ of this tradition because he self-consciously transforms the tradition he has just invented by introducing into it his methodological innovation (the experimental method). By grouping a number of authors together and emphasizing their commonalities in some crucial respects (that is, they put the science of man on sound footing, i.e., experience, and incite curiosity of public) he can ignore a) their (very real) differences and even their self-understanding of their aims (it is doubtful that most of them would wish to pursue a science of man without making it subservient to other purposes), and b) exclude other writers from consideration. For example, among English moralists, Hume omits mention of some of his targets, Clarke, Whiston, and Wollaston, and some of his allies, Addison and Steele, not to mention Swift and Berkeley.

There are several considerations why my speculative reading should not be dismissed out of hand. The fivefold list of authors is, after all, not the list of authors that are most important to understanding the philosophy of Book I of the *Treatise*: as Hume writes to his friend Michael Ramsey, for that purpose Malebranche’s *Search*, Berkeley’s *Principles*, Descartes’ *Meditations*, and Bayle’s articles on Zeno and Spinoza, especially, are far more relevant texts. With the exception, of course, of Locke, who figures prominently in Book I of the *Treatise*, the five English figures matter almost exclusive for the third (and parts of the second) book of the *Treatise*, but certainly not for the *whole* science of man.

In present-day English language philosophy education (and this reflects to some, perhaps lagging, degree *our* philosophic self-conception), Hume is the third of the British Empiricists after Locke and Berkeley. As we have seen, to his friends Hume does not deny the importance of Berkeley, but this way of presenting things is not favored by Hume in the *Treatise*. Hume *could* have presented himself as the development of Locke and Berkeley.²⁸ In the *Treatise*, Hume does not deny his debts to Berkeley and Locke; besides the mention in the introduction,

²⁷ To be clear: it is okay for my argument, although it would be surprising, if it turned out that Hume was not the sole originator of this tradition. I thank a referee for pressing this point.

²⁸ This is not an anachronistic suggestion because Hume’s *Enquiry Concerning Human Understanding* (hereafter: first *Enquiry*) has a clear movement from Locke to Berkeley. The first *Enquiry* invokes Locke in the first section and throughout the first few essays/sections introduces Locke as the main source and target. The first *Enquiry* ends with an invocation of Berkeley as the source of ‘the most profound philosophy;’ Hume comments that ‘most of the writings of that very ingenious author form,’ even if Berkeley did not intend it, ‘the best lessons of scepticism, which are to be found either among the ancient or modern philosophers.’ Ken Winkler has nicely shown that in revisions to first *Enquiry*, Hume’s rhetoric became ever more critical of Locke. Winkler K., *Matters of Reason: Essays in Early Modern British Philosophy* (Oxford: forthcoming). My debts to Winkler’s argument are more diffuse than this footnote can state.

Locke is also singled out in Hume's note on the first page of Book I and Berkeley is the only other philosopher to be mentioned in a note in the first part of Book I. So why does he focus on the 'gang of five' in the Introduction?

Hume's attempt at fashioning himself the endpoint of an English tradition is informative about his intentions. In particular, it tells us something 'negative' and 'positive.' On the 'negative' side Hume is trying to avoid being slotted in some familiar (to his contemporaries) categories: for example, the brilliant editor of the second edition of Newton's *Principia*, Roger Cotes, divides the learned world into three camps: the Scholastics, the pre-Newtonian Mechanical philosophers, and the Newtonian mathematical-experimental philosophers.²⁹ MacLaurin, the most prominent Scottish Newtonian of the first half of the eighteenth century, distinguishes between the modest, *free* (Newtonian) philosopher and the prideful, licentious (Cartesian) philosopher;³⁰ in Hume's day in some people's minds, 'Hobbist' became synonymous with 'Spinozist,' which, in turn, often became synonymous (for some) with 'Atheists' or 'free-thinker' or (in Berkeley's apt phrase) a 'minute philosopher' to be opposed by the 'common sense' philosophy of, say, Berkeley. In the English speaking world, 'superstitious' often meant Catholic/'popish,' and, thus, 'slavish' thought to be opposed to the 'true religion,'³¹ not to mention the debate between 'plenists' and 'Epicureans' and do so on. In the first *Enquiry*, Hume identifies 'Malebranche and other Cartesians' and opposes them at one point to 'Locke, Clarke, and Cudworth.' So, I speculate that the 'negative' part of the answer is that by constructing a tradition focused on the 'science of man,' Hume attempts to escape being slotted into categories that are framed around pre-existing disputes.

On the positive side, by putting these thinkers together in a category (and cutting across their differences) he invites his reader into thinking there has been *some progress* toward truth in a *common* project. It is thus a response to the worry announced right on the first page of the *Treatise*: the 'common prejudice against metaphysical reasoning of all kinds, even amongst those, who profess themselves scholars.' According to Hume this prejudice is result of the fact

²⁹ See Newton I., *Philosophical Writings*, ed. by A. Janiak (Cambridge: 2004) 43. My terminology is anachronistic, but it captures Cotes' three-fold division.

³⁰ See MacLaurin C., *An account of Sir Isaac Newton's philosophical discoveries* (London: 1750, 2nd edition). On the negative virtues, see, especially, pp. 38, 79 and 380. On Newtonian modesty, see p. 96 (to be quoted below), and the remarks on how 'liberty of enquiry' should not be 'abused' (6). For more details see Schliesser E., 'The Newtonian Refutation of Spinoza', in Janiak A. – Schliesser E. (eds.), *Interpreting Newton: Critical Essays* (Cambridge: 2012).

³¹ See for this terminology, Hume's 'Of Superstition and Enthusiasm.'

there appears to be no consensus in the world of the learned: ‘there is nothing which is not the subject of debate, and in which men of learning are not of contrary opinions,’ and even ‘the most trivial question escapes not our controversy.’³² By identifying a tradition, Hume can say that despite the ‘noisy’ appearances, there has been in reality progress: ‘the latter improvement in the science of man,’ (one might say, at home) in England, even if it lags in ‘some other agreeable arts.’ Hume is telling his readers: there are a group of thinkers that stand to Hume as the pre-Socratics stand to Socrates.

By pretending there has been a common project with progress, Hume can pretend to be taking a next step and thus deepen the tradition. The conceit of a common project is made explicit in the first sentence of Hume’s *Abstract*, a work he published (anonymously) in 1740 several months before publication of the third book of the *Treatise*. He writes, ‘This book seems to be written upon the same plan with several other works that have had a great vogue of late years in England.’ I call it a ‘conceit’ because several of the authors in his list would have been horrified (or amused) by the thought they shared ‘the same plan’—even if we leave aside conflicting religious and political goals, try to find the common plan among Mandeville’s *Fable*, Shaftesbury’s *Characteristics*, Butler’s *Sermons*, or Locke’s *Essay*. Hume discerned what was common among them: (put this anachronistically) that moral psychology is in some sense foundational to ethics.³³

Finally, I am not claiming that Hume is the first to use history in such inventive fashion. In his day, his was a very common rhetorical strategy. For example, in his best-selling (1734) *Letters on the English*, Voltaire linked Descartes, ‘who brought us to the path of truth...and gave sight to the blind,’ with Bacon, Locke, and Newton and contrasted them favourably to Malebranche (see, especially Letters 12-18; the quote is from Letter 14).³⁴ We find a similar strategy in Barbeyrac’s influential preface to his translation of Pufendorf’s *Of the Law of Nature*

³² Hume, *Treatise* Intro. 3.

³³ Gill M., *The British Moralists on Human Nature and the Birth of Secular Ethics* (Cambridge: 2006) has found such a common plan, but that is, in part, because Hume teaches us how to read his *British* contemporaries (at the expense of his French and Dutch sources).

³⁴ See Voltaire (1778) *Letters Concerning the English Nation*, London: Tonson, p. 104, <http://books.google.nl/books?id=lgGAAAAQAAJ&dq=%22sight%20to%20the%20blind%22%20Voltaire%20letters&hl=nl&pg=PA104#v=onepage&q=%22sight%20to%20the%20blind%22%20&f=false>, accessed on April 3, 2014.

and Nations (1729), 'Containing an Historical and Critical Account of the Science of Morality, and the Progress It has Made in the World, From the Earliest Times Down to the Publication of This Work'. According to Barbeyrac, reading Bacon inspired Grotius, who should 'be regarded, as the first who broke the ice' and put 'progress' in the science of the 'law of nature' on solid footing.³⁵ Grotius, in turn, was bravely followed by Pufendorf (see sections XXIX-XXX, especially). While there are obvious differences among these narratives (with which Hume almost certainly was familiar) and Hume's, all pivot around Socrates as the crucial figure among the Ancients and a more recent revival in which Bacon looms large. The authors use the tradition they invent to pointedly include and exclude other relatively recent authors.³⁶

I now turn to some striking shifts when Hume revisits and reworks this material first in the Abstract and then in the History, where his language conforms even more closely to the strategy of these three authors.

Changes between Treatise and Abstract

Some readers may feel I take Hume's list of names way too seriously. Nevertheless, in his Abstract Hume spends disproportionate amount of space on the passages I have just been discussing (three paragraphs out of thirty-five in the Nortons' edition), astonishingly so! So, at least Hume thought these issues important. But he also makes some subtle changes to the way he contextualizes the tradition he has identified/invented. He drops, for example, Thales and Socrates altogether. Also, he puts the English tradition in a *European* context of 'The philosophical spirit, which has been so much improved all over Europe within these last

³⁵ See Barbeyrac, (1729) *An historical and critical account of the science of morality: and the progress it has made in the world, from the earliest time down to the publication of Pufendorf of the law of nature and nations: in a prefatory discourse to the said work by Mr. Barbeyrac*, London: Walthoe, p. 79

http://books.google.nl/books?id=LT5WAAAAYAAJ&printsec=frontcover&dq=Barbeyrac+%22Historical+and+Critical+Account+of+the+Science+of+Morality%22&hl=nl&sa=X&ei=IZs-U5CKBMSVO-6_gOAH&ved=0CDQQ6AEwAA#v=snippet&q=%22broke%20the%20ice%22&f=false, accessed April 4, 2014

³⁶ I am not claiming such historiography was standard during the period. The 'preface' to Butler's *Sermons*, for example, offers a distinction between 'two ways' in which morals can be treated: 'one begins from enquiring into the abstract relations of things; the other, from a matter of fact, namely, what the particular nature of man is, its several parts, their economy or constitution; from whence it proceeds to determine what course of life it is, which is correspondent to the whole of nature.' (Butler, *Fifteen Sermons* (London: 1729 2nd edition, 14). One referee suggested that Hume adopts this distinction. Even if this were granted, Butler does not link up this tradition to particular authors.

fourscore years.³⁷ He also insists that the English ‘seem even to have started a new kind of philosophy,’ now to be *contrasted* with the Ancients, who now are represented as lacking a ‘regular science’ of morals nearly altogether.³⁸ While the Introduction to the *Treatise* had indicated that the Modern development of learning structurally and temporally mirrors the Ancients, in the *Abstract*, Hume is unabashedly siding with the Moderns against the Ancients. At minimum he is willing to appropriate the rhetoric of then famous battle between Ancients and Moderns to his own ends.

Another shift, if not outright misrepresentation, is that in the *Abstract* Hume claims that in the *Treatise*, ‘He talks with contempt of hypotheses; and insinuates that such of our countrymen as have banished them from moral philosophy, have done a more signal service to the world than my Lord Bacon.’ Now, I have been unable to find a place in the *Treatise* where he speaks with contempt of hypotheses in general. Rather, he rejects ‘vulgar hypothesis’,³⁹ acceptance of unexamined new hypotheses⁴⁰ and hypotheses that pretend ‘to discover the ultimate original qualities of human nature’.⁴¹ By contrast, in the *Treatise*, there at least ten cases where he describes some of his own proposals as ‘hypothesis’⁴² and advocates the search ‘for some other hypothesis’ (1.4.2.17).⁴³

³⁷ Hume, *Abstract* 1.

³⁸ ‘Most of the philosophers of antiquity who treated of human nature have shown more of a delicacy of sentiment, a just sense of morals, or a greatness of soul, than a depth of reasoning and reflection. They content themselves with representing the common sense of mankind in the strongest lights, and with the best turn of thought and expression, without following out steadily a chain of propositions, or forming the several truths into a regular science.’ Hume, *Abstract* 1.

³⁹ Hume, *Treatise* 1.3.12.20.

⁴⁰ *Ibid.* 1.3.9.1.

⁴¹ *Ibid.*, Intro. 8. The rhetoric of rejecting hypotheses fits the second (and third) editions of Newton’s *Principia*, of course; the General Scholium (added to second edition of the *Principia*) famously rejected hypotheses in natural philosophy. Book III of the first edition of the *Principia* started with a list of nine hypotheses!

⁴² e. g., *ibid.*, 1.3.9.10, where association of ideas is called ‘my hypothesis’.

⁴³ *Ibid.* 1.4.2.17. See the useful index to the Nortons’ edition. One might think that Hume’s focus on experience and experiment means that he would reject categorically hypotheses. But prior to the second edition of the *Principia* (when Newton dropped his own hypotheses that he had listed at the start of Book III), it was quite common for experimental and empirical philosophers (say, Hooke, and Boyle) to introduce hypotheses. Only if one assumes that in the *Treatise* Hume must be following (the later) Newton can one read the appeal to experience as a rejection of hypotheses. But one of the points of this paper is precisely to contribute to the growing critical scrutiny of the once common identification of Hume’s experimental method with a Newtonian enterprise, even if the present argument is largely free-standing. (For a recent sophisticated defense of the consensus view, see De Pierris G., “Hume and Locke on Scientific Methodology: The Newtonian Legacy”, *Hume Studies* 32, 2 (2006) 277–329.) For the critical literature see Casini P., “Newton’s *Principia* and the Philosophers of the Enlightenment”, *Notes and Records of the Royal Society of London* 42, 1 (1988) 35–52; Barfoot M., “Hume and The Culture of Science in The Early Eighteenth Century”, in Stewart M. A. (ed.), *Studies in the Philosophy of Scottish Enlightenment* (Oxford: 1990) 151–190. Waxman W., “The Psychologistic Foundations of Hume’s Critique of Mathematical Philosophy”, *Hume Studies* 22,

Moreover, in the *Abstract* he suggests that by rejecting hypotheses in moral philosophy, the new English tradition he has identified has been even more useful to mankind than Bacon—I defy anybody to find anything remotely like this precise thought insinuated in the original *Treatise*! (Of course, in the introduction to the *Treatise*, Hume claims that moral philosophy can be more useful than natural philosophy.) Yet, the *Abstract* emphasizes, ‘He [the author of the *Treatise*] mentions, on this occasion’ the five philosophers. Even if Hume was abstracting entirely from memory, this is a very creative reading of his own text. It is also a subtle lowering of status for Bacon.⁴⁴ To be clear, the lowering of, what one might call, the totemic value of Bacon is quite compatible with Hume’s continued adherence to various Baconian commitments (including explanatory reductionism, experimentalism, etc.)⁴⁵

So, while Hume drops and changes aspects of the *Treatise*’s Introduction, these changes are designed to highlight *even more* the originality as well as philanthropy (‘a more signal service to the world’) of the new English tradition on the science of man. (I doubt Hutcheson or Butler viewed Mandeville in such benign lights.). But he also adds to his description of the English tradition he has discerned has been up to. I quote before I comment on the passage which I use to offer an explanation for these larger thematic shifts:

But ’tis at least worth while to try if the science of *man* will not admit of the same accuracy which several parts of natural philosophy are found susceptible of. There seems to be all the reason in the world to imagine that it may be carried to the greatest degree of exactness. If, in examining several phenomena, we find that they resolve themselves into one common

1 (1996) 123–168; Hazony Y., “Newtonian Explanatory Reduction and Hume’s ‘System of the Sciences,’” in Biener Z. – Schliesser E. (eds.), *Newton and Empiricism* (Oxford & New York: in press); Hazony Y. – Schliesser E., “Newton and Hume”, in Russell P. (ed.), *The Oxford Companion to David Hume* (Oxford: in press); Demeter T., “Hume’s Experimental Method”, *British Journal for the History of Philosophy* 20 (2012) 577–599.; Boehm M. F., ‘Hume’s Foundational Project in Book I of the *Treatise*,’ unpublished doctoral dissertation (University of California—Irvine: 2008); see Schliesser E., “Hume’s Attack on Newton”, *Enlightenment & Dissent* 25 (2009) 167–203; Schliesser E., “Two Definitions of Causation, Normativity, and Hume’s Debate with Newton,” in Ducheyne S. (ed.), *Future Perspectives on Newton Scholarship and the Newtonian Legacy in Eighteenth-century Science and Philosophy* (Brussels: 2009); Schliesser E., “Hume’s Missing Shade of Blue Reconsidered from a Newtonian Perspective”, *Journal of Scottish Philosophy*, 2, 2 (2004) 164–175; Schliesser E., “Hume’s Newtonianism and Anti-Newtonianism”, *The Stanford Encyclopedia of Philosophy* (Winter 2008 Edition), ed. by E. N. Zalta, URL = <<http://plato.stanford.edu/archives/win2008/entries/hume-newton/>>.

⁴⁴ In ‘Of the Dignity or Meanness of Human Nature’ (first published in 1741 as ‘Of The Dignity of Human Nature’) Hume calls Bacon ‘wise’—a characterization not removed in subsequent editions. I thank Katy Abramson for calling my attention to this.

⁴⁵ I thank a referee for insisting on this clarification.

principle, and can trace this principle into another, we shall at last arrive at those few simple principles on which all the rest depend. And tho' we can never arrive at the ultimate principles, 'tis a satisfaction to go as far as our faculties will allow us.

This seems to have been the aim of our late philosophers, and, among the rest, of this author. He proposes to anatomize human nature in a regular manner, and promises to draw no conclusions but where he is authorized by experience.⁴⁶

First, here Hume is far more specific about the methodology common to the English tradition. Now he claims that they are committed to what we might call explanatory reductionism based on empirical evidence.⁴⁷ And this explanatory reductionism becomes the main, overarching theme of the *Abstract*, which in the concluding paragraph emphasizes that 'if any thing can entitle the author to so glorious name as that of an inventor, 'tis the use he makes of the principle of association of ideas, which enters into most of his philosophy.'⁴⁸ I suspect that except for Locke and Mandeville, perhaps, the English philosophers would have objected to the skeptical spin -- viz., we can never arrive at the ultimate principles -- Hume gives to their shared explanatory model.

It is, however, also worth mentioning that the focus on explanatory reductionism makes the normative part of the *Treatise* a less natural outgrowth of the project. Recall that in *Treatise* 1.3.15, Hume states eight 'rules by which to judge of causes and effects' because it is 'possible for all objects to become causes or effects to each other.' Hume thinks it is 'proper' to employ them in his 'reasoning'.⁴⁹ Earlier in the *Treatise*, he was even more adamant about the regulative character of these rules: 'We shall afterwards take notice of some general rules, by which we ought to regulate our judgment concerning causes and effects; and these rules are form'd on the nature of our understanding, and on our experience of its operations in the judgments we form concerning objects'.⁵⁰ Moreover, in the Introduction to the *Treatise*, Hume had written, 'even

⁴⁶ Hume, *Abstract* 1–2.

⁴⁷ See also Schliesser E., "Copernican revolutions revisited in Adam Smith by way of David Hume", *Revista Empressa Y Humanismo* 13 (2010) 213–248.

⁴⁸ Hume, *Abstract* 35.

⁴⁹ Hume, *Treatise* 1.3.15.2 & 1.3.15.11.

⁵⁰ Ibid. 1.3.13.11. See Martin M. A., (1993) "The Rational Warrant for Hume's General Rules", *Journal of the History of Philosophy* 31, 2 (1993) 245–257; and de Pierris G., "Hume's Pyrrhonian Skepticism and the belief in Causal Laws", *Journal for the History of Philosophy* 39, 3 (2001) 351–383.

mathematics, natural philosophy, and nature religion, are in some measure dependent on the science of man...’Tis imposible to tell what changes and improvements we might make in these sciences were we thoroughly acquainted with the extent and force of human understand, and cou’d explain the nature of the ideas we employ, and of the operations we perform in our reasoning.⁵¹ Hume thinks that armed with future knowledge of human nature, we may improve the other sciences. So, it should be no surprise that in the Introduction, Hume also suggests that the study of human nature will change, at least in part, the total structure (‘a compleat system...’) of the other sciences.⁵² In his Abstract summary Hume does not even mention a regulative function for the science of man; the science of man is also not named the ‘foundation’ for the other science.⁵³

Third, Hume now takes *successes in several parts* of natural philosophy as a model to be emulated by the science of man. This is never mentioned in and really not the point of the Treatise’s *Introduction*, where the science of man will be in a position to regulate mathematics, natural philosophy, and natural religion. The idea is not entirely absent in *Treatise*, but it is not highlighted.⁵⁴

Finally, in the Abstract Hume is far more tentative about the epistemic security that can be achieved by human sciences. Gone is the confidence that it ‘will not be inferior in certainty’;⁵⁵ now this is ‘only worth while to try.’

⁵¹ Hume, *Treatise* Intro. 4.

⁵² Hume’s ambition, to offer ‘a compleat system,’ is worth contrasting with the claim by MacLaurin that ‘a compleat system indeed was not to be expected from one man, or one age, or perhaps from the greatest number of ages; could we have expected it from the abilities of any one man, we surely should have had it from Sir *Isaac Newton*: but he saw too far into nature to attempt it.’ (MacLaurin, *Account* 96.)

⁵³ cf., especially, Hume, *Treatise* Intro. 5–6.

⁵⁴ ‘Besides, we find in the course of nature, that tho’ the effects be many, the principles, from which they arise, are commonly but few and simple, and that ’tis the sign of an unskilful naturalist to have recourse to a different quality, in order to explain every different operation. How much more must this be true with regard to the human mind, which being so confin’d a subject may justly be thought incapable of containing such a monstrous heap of principles, as wou’d be necessary to excite the passions of pride and humility, were each distinct cause adapted to the passion by a distinct set of principles?

Here, therefore, moral philosophy is in the same condition as natural, with regard to astronomy before the time of *Copernicus*. The antients, tho’ sensible of that maxim, *that nature does nothing in vain*, contriv’d such intricate systems of the heavens, as seem’d inconsistent with true philosophy, and gave place at last to something more simple and natural. To invent without scruple a new principle to every new phænomenon, instead of adapting it to the old; to overload our hypotheses with a variety of this kind; are certain proofs, that none of these principles is the just one, and that we only desire, by a number of falsehoods, to cover our ignorance of the truth.’ (Hume, *Treatise* 2.1.3.6-7) For discussion see Manzo S., “David Hume and Copernicanism” presented at the Hume Society, Halifax, August 2009 and Schliesser, “Copernican revolutions revisited”.

⁵⁵ Hume, *Treatise* Intro. 10.

So, the *Abstract* signals a series of subtle shifts within the system of the sciences. Some of these may be accounted for by changed genres (shift from Introduction to Abstract). But the Abstract includes new elaborations and emphases, and this suggests something other than mere summary is going on. The most important differences – a) the shift to the Moderns, b) the increased tone of humility toward natural philosophy, c) the rejection of hypotheses, d) the reduced rhetoric about the normative project, e) the lowered status of Bacon, and f) even the insistence on explanatory reductionism can be accounted for by an important change of historical circumstances, in particular, a dramatic change of status in Newton's authority in the 1730s.

When Hume drafted the *Treatise* while at La Flèche in 1734-1737, Newton's system was not a 'settled fact'--there were serious outstanding empirical issues (regarding the shape of the Earth and the lengthening of the pendulum with latitude). These empirical doubts concerned the *empirical* adequacy of the universal law of gravitation (which emboldened those with metaphysical concerns). The issues were not decided until French expeditions to Lapland and the Equator.⁵⁶ Maupertuis' *Sur la figure de la terre* appeared in 1738 (it also appeared in English translation that year). Adam Smith, mentions this result as decisive evidence for Copernicanism and the Newtonian system in his 'History of Astronomy.'⁵⁷ In 1738 Voltaire also published his influential piece of Newtonian propaganda *Eléments de la philosophie de Newton*; an English translation appeared in the same year. It is unclear when Hume became aware of the relevant empirical evidence, but probably not at La Flèche. It is, of course, possible that when back in Britain between the publication of the first two books of the *Treatise* and the drafting of the 'Abstract' (and the 'Appendix,' which was the first time he comes close to mentioning Newton explicitly; the Appendix was added to the third book published in November 1740), he became aware of these recent developments.⁵⁸

So, to be clear, when Hume drafted the first two volumes of the *Treatise*, Continental

⁵⁶ See Schliesser E. – Smith G. E., "Huygens' 1688 Report to the Directors of the Dutch East India Company on the Measurement of Longitude at Sea and the Evidence it Offered Against Universal Gravity", *Archive for the History of the Exact Sciences*, forthcoming, and Maglo K., "The Reception of Newton's Gravitational Theory by Huygens, Varignon, and Maupertuis: How Normal Science may be Revolutionary", *Perspectives on Science*, 11, 2 (2003) 135–169.

⁵⁷ Smith A., *Essays on Philosophical Subjects*, ed. by W. P. D. Wightman – J. C. Bryce, vol. III of the Glasgow Edition of the Works and Correspondence of Adam Smith (Indianapolis: 1982) chapter: *SECTION IV: The History of Astronomy*, 101.

⁵⁸ For an attempt to understand Books I & II of the *Treatise* as a unified project see Harris J., "A compleat chain of reasoning': Hume's project in *A Treatise of Human Nature*, Books 1 and 2", *Proceedings of the Aristotelian Society* 109 (2009) 129–148.

Cartesians accepted celestial inverse/square gravity, and it was accommodated within their various systems. But outside Britain Hume could have found himself in a large and important company for thinking that the terrestrial (and, thus, universal) gravity part of Newton's claims were still speculative.⁵⁹ That is to say, when in the Introduction to the *Treatise*, Hume crafted himself as heir to and innovator in an English tradition in the science of man he did so, in part, to challenge the authority of mathematical natural philosophy.⁶⁰ In crafting this English tradition, he did not call attention to the Continental (Descartes, Malebranche, Bayle, etc.) and anti-Newtonian (Berkeley, Leibniz) conceptual tools he would be relying on. After 1738, learned opinion moved decisively into Newton's camp across Europe, and so Hume was faced with a rhetorical problem. Newton was now being hailed by progressive French thinkers, especially Voltaire.

I conjecture that many of Hume's changes between *Treatise* and *Abstract* reflect the new-found authority of Newton.⁶¹ Two of the five shifts identified seem directly tied to the new prestige of Newton: Hume's sudden dismissal of hypotheses in the *Abstract* echoes Newton's '*hypothesis non fingo*' and explanatory reductionism is vintage Newtonian.⁶² The three other shifts can also be understood in this context: the new, normative *modesty* toward mathematical natural philosophy seems tied toward the newfound prestige of the latter. Furthermore, post-Newton the debate became Ancients and Moderns became increasingly one sided;⁶³ the Ancients had nothing to match recent successes in natural philosophy—the modern notion of progress was about to be born. Finally, within English natural philosophy Newtonian mathematical natural

59 This was Locke's position to his death. See Domski M., "Locke's Qualified Embrace of Newton's *Principia*", in Janiak A. – Schliesser E. (eds.), *Interpreting Newton* (Cambridge: 2012).

⁶⁰ See, especially, Hume's very critical treatment of the application of geometry at Hume, *Treatise* 1.2.4.17-33 and also the extremely sceptical arguments about even mathematical knowledge at *ibid.* 1.4.1.1-6. On *ibid.* 1.4.1.1-6, see Meeker K., "Hume on Knowledge, Certainty and probability: Anticipating the Disintegration of the Analytic/Synthetic Divide?", *Pacific Philosophical Quarterly* 88 (2007) 226–242. Presumably the purpose behind Hume's strategy was to challenge Newtonian cosmogony which focused on Design arguments.

⁶¹ This is not to say the *Abstract* pulls all the punches on Hume's critical attitude toward mathematical natural philosophy in *Treatise* 1.2. He belatedly (and out of order) mentions some of the crucial doctrines of part two book I (Hume, *Abstract* 29).

⁶² My treatment is not very fine-grained. In particular, there is a growing literature relating Newton's methodological distinction between analysis and synthesis to Hume's explanatory reductionism. So, the 'elements' of Hume's system (Hume, *Treatise* 1.1.4.7) are used both taken for granted to explore other phenomena (synthesis) as well as deduced from the phenomena in Hume. See Thomas Sturm (in this volume) as well as Hazony Y., (in press) "Newtonian Explanatory Reduction and Hume's 'System of the Sciences'".

⁶³ This does not mean Hume cannot find ways to balance the scales: 'it may be observed, that even this later period of human learning is, in many respects, of an opposite character to the ancient; and that, if we be superior in *philosophy*, we are still, notwithstanding all our refinements, much inferior in eloquence.' Quoted from Hume D., *Essays Moral, Political, Literary*, ed., foreword, notes, and glossary by E. F. Miller, with an appendix of variant readings from the 1889 edition by T.H. Green and T.H. Grose, revised edition (Indianapolis: 1987), 89.

philosophy was being seen as displacing Baconian natural history.⁶⁴ My speculative argument here fits nicely with the evidence collected by Martin Bell, who has explored how Hume adopts far more Newtonian rhetoric in the first Enquiry.⁶⁵ In his later works, Hume never again challenges the epistemic status of the *application* of mathematics as such in physical enquiry in general,⁶⁶ but he certainly continues to suggest that Newtonian (religious) cosmogony is useless and he does not flinch from suggesting that mathematics can be a source of scepticism tout court (EHU 12.20, SBN 157-158)).⁶⁷

The History: A new road

Here I conclude by showing how Hume constructs a different tradition leading up to himself in the *History*. The recasting of tradition in the *History* is, I conjecture, a subsequent response to the success of Newton.

The invented tradition that leads up to Hume in the *History* that I am about to describe does not receive the same kind of prominence as the one in the opening lines of the *Treatise* and the *Abstract*. In fact, Hume seems to go out of the way to make it hard to discern, and if it were not for the repetition of some striking locutions one might miss it altogether.

The main point of the passages that I am about to discuss is a movement from so-called ‘false’ to ‘true’ philosophy. The first extended use of this trope by Hume is in *Treatise* 1.4.3.9 (of the Ancient philosophy), where he describes the procession of vulgar, false, and true

⁶⁴ See Feingold M., “Mathematicians and naturalists: Sir Isaac Newton and the Royal Society”, in Buchwald J. Z. – Cohen I. B. (eds.), *Isaac Newton’s Natural Philosophy* (Cambridge: 2000).

⁶⁵ Bell M., “Hume and Causal Power: The Influence of Malebranche and Newton”, *British Journal for the History of Philosophy* 5, 1 (1997) 67–86. One otherwise sympathetic referee has rightly noted that Hume’s *Enquiries* play an insignificant role in my argument. This is a lacuna, especially because one of the sub-texts of this paper is to motivate a different understanding of Hume’s relationship to the sciences than is commonly accepted in the scholarly literature (and if that were the main focus of this paper, it would indeed require careful consideration of the *Enquiries*). But while Hume makes tantalizing comments about the status of various authors throughout both *Enquiries*, I have been unable to discern Hume’s use of literary/intellectual traditions of the sort that I am analyzing in the body of this paper.

⁶⁶ Hume D., *An Enquiry Concerning Human Understanding*, Edited by Tom L. Beauchamp (Oxford, 2006) 12.27, SBN 163.

⁶⁷ Hume, *Enquiry* 12.20, SBN 157–158. Cf. Hume’s ‘new microscope’ is restricted to ‘the moral sciences’ in the first *Enquiry* (7.1.4). See, also, Schliesser E., ‘Four Methods of Empirical Enquiry in the Aftermath of Newton’s Challenge’, forthcoming.

philosophy.⁶⁸ It may, perhaps, be echoed in the prominently introduced treatment of his ‘true metaphysics’ of first *Enquiry*.⁶⁹

But for present purposes two alternative passages are more important. First, I focus on a crucial passage from Hume’s posthumously published ‘Of Suicide:’ ‘But superstition, being founded on false opinion, must immediately vanish, when *true philosophy* has inspired juster sentiments of superior powers. The contest is here more equal between the distemper and the medicine: And nothing can hinder the latter from proving effectual, but its being false and sophisticated.’⁷⁰ True philosophy can be a medicine against superstition.⁷¹ As is well known, this piece was originally intended for publication in 1755. I mention it because it shows that from Hume often used a distinction (not necessarily the identical in meaning) between true and false philosophy.

Second, very early in the *Treatise*, just after Hume has given us an introduction to the associative mechanism (the principle that according to the Abstract gives the ‘author to so glorious name as that of an inventor’), Hume provides us with a clue of the content of his response to Newton:

These are therefore the principles of union or cohesion among our simple ideas, and in the imagination supply the place of that inseparable connexion, by which they are united in our memory. Here is a kind of ATTRACTION, which in the mental world will be found to have as extraordinary effects as in the natural, and to shew itself in as many and as various forms.

⁶⁸ The best treatment of this is to be found in Livingston D. W., *Philosophical Melancholy and Delirium Hume's Pathology of Philosophy* (Chicago: 1998) especially chapter 2, ‘The Dialectic of True and False Philosophy’. (See also Hume, *Treatise* 2.1.4.7, quoted above; 3.2.10.15; 3.3.1.10.) See, also, Schliesser E. “Philosophic Prophecy” *Philosophy and its History*, edited by Laerke, M. et. al. (Oxford: in press).

⁶⁹ Hume, *Enquiry* 1.12.

⁷⁰ Hume, *Essays*, 579.

⁷¹ This suggests that Harris J., “Hume’s four essays on Happiness and their Place in the Move from Morals to Politics”, in Mazza E. – Ronchetti E. (eds.), *New Essays on David Hume* (Milan: 2007) cannot be entirely right. Harris explores how the four essays (The Epicurean, The Stoic, The Platonist, The Sceptic) contribute to ‘one’s understanding of Hume’s conceptions of the task of moral philosophy’ (226). Taken together, these essays present, ‘the bankruptcy of the ancient conception of moral philosophy as a means of curing the soul with reasoned argumentation about the nature of the highest good for human beings’ (230). According to Harris Hume accepts the Hobbesian program that philosophy cannot be ‘medicine of the soul’ (234). But the passage from Of Suicide suggests otherwise (see also ‘Of Superstition and Enthusiasm.’ As superstition is a considerable ingredient in almost all religions, even the most fanatical; there being nothing but *philosophy* able entirely to conquer these unaccountable terrors avid Hume, *Essays*, 75. Of course, even if Hume disagrees with Hobbes’ negative assessment, it entirely allows that Hume agrees with Hobbes that philosophy is a medicine for the state (and this is indirectly confirmed by Hume, *Treatise* 3.2.10.15; 3.3.1.10, and the treatment of ‘false philosophy’ in ‘Of The Original Contract’).

Its effects are every where conspicuous; but as to its causes, they are mostly unknown, and must be resolved into original qualities of human nature, which I pretend not to explain. Nothing is more requisite for a true philosopher, than to restrain the intemperate desire of searching into causes, and having established any doctrine upon a sufficient number of experiments, rest contented with that, when he sees a farther examination would lead him into obscure and uncertain speculations. In that case his enquiry would be much better employed in examining the effects than the causes of his principle.⁷²

Hume's associative principle is a kind of mental attraction evidentially on par with the physical kind.⁷³ It provides, as Hume claims in the Abstract, explanatory reductionism. The *Treatise* also gives a sceptical slant to it – its causes must be unaccountable located in the 'original qualities of human nature.' Crucially, Hume identifies the 'true philosopher' with the person who knows how to stop further enquiry. Putting an end to enquiry into causes avoids getting one involved in the wrong (obscure and uncertain) kind of enterprise—the sort that only leads to *useless* speculations. While on the surface Hume's argument is very akin to Newton's '*hypotheses non fingo*,'⁷⁴ Newton did not think one ought to end inquiry. Rather he hoped that 'the principles set down here will shed some light on either this mode of philosophizing *or some truer one*' (*Principia*, Author's Introduction, emphasis added; see also Newton's fourth rule of reasoning.) So, while not denying that Hume is advocating further research on the effects of a known principle, the Humean 'true philosopher' of the *Treatise* respects certain kinds of self-imposed limits to inquiry. The criterion seems to be provided by to what degree we are led to objects of pure speculation (that is not socially useful), which apparently follows from inquiry that may not have determinate result.

Let's turn to the *History*. Hume writes:

England itself, though sunk in the deepest abyss of ignorance and superstition, had seriously entertained thoughts of shaking off the papal yoke; and the Roman pontiff was obliged to

⁷² Hume, *Treatise* 1.1.4.6.

⁷³ Hume sticks with this claim (see 'Of the Balance of Trade' and 'Dissertation of the Passions').

⁷⁴ Cf. McMullin E., (2001) "The Impact of Newton's *Principia* on the Philosophy of Science", *Philosophy of Science* 68, 3 (2001) 279–310.; with Schliesser E., "Newton's Challenge to Philosophy: A Programmatic Essay", *HOPOS: The Journal of the International Society for the History of Philosophy of Science* 1 (2011) 101–128.

think of new expedients for rivetting it faster upon the Christian world. For this purpose, Gregory IX. published his decretals, which are a collection of forgeries, favourable to the court of Rome, and consist of the supposed decrees of popes in the first centuries. But these forgeries are so gross, and confound so palpably all language, history, chronology, and antiquities; matters more stubborn than any speculative truths whatsoever; that even that church, which is not startled at the most monstrous contradictions and absurdities, has been obliged to abandon them to the critics. But in the dark period of the thirteenth century, they passed for undisputed and authentic; and men, entangled in the mazes of this false literature, joined to the philosophy, equally false, of the times, had nothing wherewithal to defend themselves, but some small remains of common sense, which passed for profaneness and impiety, and the indelible regard to self-interest, which, as it was the sole motive in the priests for framing these impostures, served also, in some degree, to protect the laity against them.⁷⁵

For Hume the ‘dark’ ages are full ‘ignorance and superstition,’ which are marked by a ‘false’ philosophy and ‘false literature.’⁷⁶ While there is much more in this passage that might interest us, this is a nice description of Hume’s typical (and, perhaps, unfair) Enlightenment view of the ground zero (here the thirteenth century) from which progress, however slowly, can be made. But it has to be admitted that Hume does not flag the theme here. Now fast forward to the sixteenth century; about it Hume writes:

The quick and surprising progress of this bold sect may justly in part be ascribed to the late invention of printing, and revival of learning: Not that reason bore any considerable share, in opening men’s eyes with regard to the impostures of the Romish Church: For of all branches

⁷⁵ Hume, *History* vol. 2, 70-1

⁷⁶ This is not to deny that for Hume even in very darkest periods outstanding minds can shine forth, for example, Alfred the Great (see Hume, *History* vol. 1, 74-5; and, in later times, Sir William Temple and Johan de Wit, (see *ibid.* vol. 6, 219-20). Harvey is marked out for special recognition by Hume. This has made Wertz claim that Harvey is Hume’s model character in Wertz S. K., “Hume and the Historiography of Science”, *Journal of the History of Ideas* 54, 3 (1993) 411–436. But while according to Hume ‘Harvey is entitled to the glory of having made, by reasoning alone, without any mixture of accident, a capital discovery in one of the most important branches of science’ and Harvey is praised for ‘his industry and ingenuity’ Harvey is not fitted into the narrative of the slow progress of true philosophy. Rather he is used to reinforce another Humean idea; that habits of thought are slow to change: ‘It was remarked, that no physician in Europe, who had reached forty years of age, ever, to the end of his life, adopted *Harvey*’s doctrine of the circulation of the blood, and that his practice in London diminished extremely, from the reproach drawn upon him, by that great and signal discovery. So slow is the progress of truth in every science, even when not opposed by factious or superstitious prejudices!’ Hume, *History* vol. 6, 153-4.

of literature, *philosophy* had, as yet, and till long afterwards, made the most inconsiderable progress; neither is there any instance that argument has ever been able to free the people from that enormous load of absurdity, with which superstition has every where overwhelmed them....The minds of men, somewhat awakened from a profound sleep of so many centuries, were prepared for every novelty, and scrupled less to tread in any unusual path, which was opened to them.⁷⁷

For our purposes it is significant that Hume uses the sixteenth century Reformation to introduce his readers to the theme of the varieties of the very possibility of intellectual progress and the social ingredients (i.e., new technologies) that enter into it. Rather than attributing to Protestantism itself virtues that make the scientific revolution possible (cf. Weber and Merton), Hume sees a more secondary effect: ‘awakened’ minds are open to novelty. After centuries of superstition the forces of light enter on the scene.⁷⁸ But the progress of philosophy is exceedingly slow; even as late as King James and Bacon the times are very marked by superstition:

It may be worth observing, that James, from his great desire to promote controversial divinity, erected a college at Chelsea for the entertainment of twenty persons, who should be entirely employed in refuting the papists and puritans. All the efforts of the great Bacon could not procure an establishment for the cultivation of natural *philosophy*: Even to this day, no society has been instituted for the polishing and fixing of our language. The only encouragement, which the sovereign in England has ever given to any thing, that has the appearance of science, was this short-lived establishment of James; an institution quite superfluous, considering the unhappy propension, which, at that time, so universally possessed the nation for polemical theology.⁷⁹

⁷⁷ Hume, *History* vol. 3, 140. One wonders if Kant’s awakening from dogmatic slumber by Hume is not meant to be a further tribute to Hume’s language here. Hume’s *History* had been translated in German, and was familiar to Kant, who discusses the *History* in his 1775-1776 lectures. See Sturm T., (ms) “Kant and the Philosophy of Human Sciences” chapter 6.

⁷⁸ To do full justice to these themes, I would also have to describe Hume’s treatment of ‘barbarism’ and civilization (see Pocock J. G. A., *Barbarism and Religion* (Cambridge: 2001)) and his understanding of ‘true liberty.’ (See also Schliesser E., “The Posidonian Argument and the Neutrality Requirement in Hume and Adam Smith”, under review).

⁷⁹ Hume, *History* vol. 5, 132. In fact *Newton*’s time continues to be marked by superstition: ‘[King James I] has composed a commentary on the Revelations, and proved the pope to be Antichrist; may not a similar reproach be

Now with the Introduction to the *Treatise* in mind, one might not be surprised that Bacon is called ‘great.’ Yet, it might be thought to undermine my argument that from the Abstract onward, Hume downplays Bacon’s significance. To forestall this possible objection, I quote Hume’s summary of Bacon’s life nearly in full:

The great glory of literature in this island, during the reign of James, was lord Bacon...If we consider the variety of talents displayed by this man; as a public speaker, a man of business, a wit, a courtier, a companion, an author, a philosopher; he is justly the object of great admiration. If we consider him merely as an author and philosopher, the light in which we view him at present, though very estimable, *he was yet inferior to his cotemporary Galileo, perhaps even to Kepler. Bacon pointed out at a distance the road to true philosophy*: Galileo both pointed it out to others, and made himself considerable advances in it. The Englishman was ignorant of geometry: The Florentine revived that science, excelled in it, and was the first that applied it, together with experiment, to natural philosophy. The former rejected, with the most positive disdain, the system of Copernicus: The latter fortified it with new proofs, derived both from reason and the senses. Bacon’s style is stiff and rigid: His wit, though often brilliant, is also often unnatural and far-fetched; and he seems to be the original of those pointed similies and long-spun allegories, which so much distinguish the English authors: Galileo is a lively and agreeable, though somewhat a prolix writer. But Italy, not united in any single government, and perhaps satiated with that literary glory, which it has possessed both in ancient and modern times, has too much neglected the renown which it has acquired by giving birth to so great a man. That national spirit, which prevails among the English, and which forms their great happiness, is the cause why they bestow on all their eminent writers, and on Bacon among the rest, such praises and acclamations, as may often appear partial and excessive.⁸⁰

extended to the famous writer Napier; and even to Newton, at a time when learning was much more advanced than during the reign of James? From the grossness of its superstitions, we may infer the ignorance of an age; but never should pronounce concerning the folly of an individual, from his admitting popular errors, consecrated by the appearance of religion’ (ibid.)

⁸⁰ Hume, *History*, Vol. 5, 153.

First, continues to admire Bacon, but Hume clearly does not portray Bacon as the re-founder of the sciences or a particularly important philosopher. In fact, if anything he comes very close to claiming that the praise for Bacon has its roots in *English* nationalism. Given that Scotland is nearly entirely excluded from the *History*, in this context we might be inclined to read ‘the English’ as referring more narrowly than in the *Treatise*. If anything, he suggests that literary fame can be a consequence of the vicissitudes of national unity.⁸¹ Hume’s perspective here is quite European: he calls attention to the contributions of Copernicus, Kepler, and Galileo. We are far removed from the national narrative of the Introduction to the *Treatise* (and even the Abstract). In fact, as we shall see, Hume’s language in his new description echoes more closely the kind of rhetoric I quoted earlier from Voltaire and Barbeyrac.

Second, Hume’s narrative of the progress of philosophy finally starts to gather speed. Bacon’s role in generating this progress is much reduced: he ‘pointed out at a distance the road to true philosophy.’ Bacon is not a true philosopher, he never even made it on the road to true philosophy. Bacon is a sign-post for things to come,—that is all. While the description of Kepler is terse, Hume seems to imply that Kepler made it on the road to true philosophy. But the new hero of the narrative is Galileo, who not only spread the good news, but made ‘considerable advances’ toward ‘true philosophy.’⁸² If we leave aside Galileo’s writing style, Hume commends him for his great skill in geometry and, in particular, its application together with experiment in natural philosophy. Galileo has found the nearly ideal combination of reason and empirical evidence. But Galileo is not labelled as a true philosopher; he has only made considerable advances on the road.⁸³ So, the question arises, does Galileo’s shortcoming arise in a point of methodology or doctrine (or both), or something altogether different? At least the contour of an answer to these questions can be discerned in his treatment of Boyle and Newton:

⁸¹ Hume’s treatment of Hobbes in the *History* (‘in our time, he is much neglected: A lively instance how precarious all reputations, founded on reasoning and philosophy!’) and his treatment of Locke’s (who will be ‘entirely forgotten’ when people may still be reading Addison (*first Enquiry*), suggests that posthumous fame of the philosopher is never far removed of his thoughts. See also Schliesser (2003) op cit, and Baier A. C., *Death and Character: Further Reflections on Hume* (Cambridge: 2008).

⁸² It is not the first time Hume praises Galileo so highly: ‘Were we to distinguish the Ranks of Men by the Genius and Capacity more than by their Virtue and Usefulness to the Public, great Philosophers would certainly challenge the first Rank, and must be plac’d at the Top of human Kind. So rare is this Character, that, perhaps, there has not, as yet, been above two in the World, who can lay a just Claim to it. At least, Galileo and Newton seem to me so far to excel all the rest,’ (Hume D., *Essays, Moral, Political, and Literary* (hereafter *Essays*) ed. by E. F. Miller, 1987, Indianapolis: Libertyfund, 550. From the point of view of utility Galileo and Newton shine less brightly.

⁸³ In Voltaire Galileo was called ‘great’ (*Letter XIV*).

But though the French academy of sciences was directed, encouraged and supported by the sovereign, there arose in England some men of superior genius who were more than sufficient to cast the balance, and who drew on themselves and on their native country the regard and attention of Europe. Besides Wilkins, Wren, Wallis, eminent mathematicians, Hooke, an accurate observer by microscopes, and Sydenham, the restorer of *true* physic; there flourished during this period a Boyle and a Newton; men who trod, with cautious, and therefore the more secure steps, the only road, which leads to true philosophy.⁸⁴

So, despite the more favourable French institutional setting, England produced eminent men in the seventeenth century. In contrast to the Introduction to the *Treatise*, Hume drops the claim that English pre-eminence is a necessary consequence of toleration and liberty. This view he came to attribute to Addison and Shaftesbury and repudiate in his essay, 'Of Civil Liberty.'⁸⁵ Echoing Mandeville, Sydenham, the teacher of Locke, is singled out for praise as the restorer of true medicine. Boyle and Newton receive high praise. In fact, the list of names in this paragraph overlaps with Locke's oft quoted line from the 'Epistle to the Reader' of the *Essay*: 'every one must not hope to be a Boyle or a Sydenham; and in an age that produces such masters as the great Huygenius and the incomparable Mr. Newton, with some others of that strain, it is ambition enough to be employed as an under-labourer in clearing the ground a little, and removing some of the rubbish that lies in the way to knowledge.'⁸⁶ Lest we think this overlap suggests Hume is returning to his Lockean roots, *Locke* is pointedly excluded by Hume from his list. Not only does Locke fail to receive his own mini-biography of the sort Hume gives to Bacon (quoted above) and Hobbes (partially quoted above), he only gets mentioned twice in the whole *History*; in both

⁸⁴ Hume, *History* vol. 6. 541.

⁸⁵ But what would these writers have said, to the instances of modern ROME and of FLORENCE? Of which the former carried to perfection all the finer arts of sculpture, painting, and music, as well as poetry, though it groaned under tyranny, and under the tyranny of priests: While the latter made its chief progress in the arts and sciences, after it began to lose its liberty by the usurpation of the family of MEDICI. ARIOSTO, TASSO, GALILEO, more than RAPHAEL, and MICHAEL ANGELO, were not born in republics... And though the LOMBARD school was famous as well as the ROMAN, yet the VENETIANS have had the smallest share in its honours, and seem rather inferior to the other ITALIANS, in their genius for the arts and sciences. RUBENS established his school at ANTWERP, not at AMSTERDAM: DRESDEN, not HAMBURGH, is the centre of politeness in GERMANY' Hume, *Essays*, 90.

⁸⁶ For a reading of Locke's intent, see Domski, 'Locke's Qualified Embrace of Newton's *Principia*.'

cases Hume criticizes Locke: once to deny Locke's veracity as a historical witness⁸⁷ and once to treat him as a footnote exemplar of Whig propagandist.⁸⁸ So, whatever else we may think, according to Hume Locke is lost in the proverbial wilderness without a road in sight. Hume's distancing from Locke is a dramatic shift from the *Treatise*, *Abstract*, and the early editions of first *Enquiry*.⁸⁹

Boyle and Newton receive praise for their caution. This suggests that 'true philosophy' picks out a shared methodology and not content. In the mini-biography of Boyle's character, Hume, indeed, emphasizes the methodological aspects of Boyle:

Boyle improved the pneumatic engine invented by Otto Guericke, and was thereby enabled to make several new and curious experiments on the air as well as on other bodies: His chemistry is much admired by those who are acquainted with that art: His hydrostatics contain a greater mixture of reasoning and invention with experiment than any other of his works; but his reasoning is still remote from that boldness and temerity, which had led astray so many philosophers. Boyle was a great partizan of the mechanical philosophy; a theory, which, by discovering some of the secrets of nature, and allowing us to imagine the rest, is so agreeable to the natural vanity and curiosity of men. He died in 1691, aged 65.⁹⁰

Boyle's experimental practice and reasoning style are praised; Boyle is creative experimentalist, but cautious in his arguments. By contrast, Boyle's theory, the mechanical philosophy, only gets limited endorsement. For Newton 'falsifies' the mechanical philosophy:

⁸⁷ 'The story told of Sir Anthony Ashley Cooper, by Mr. *Locke*, has not any appearance of truth. See lord Lansdown's Vindication, and Philips's Continuation of Baker. I shall add to what those authors have advanced, that cardinal Mazarine wished for the king's restoration; though he would not have ventured much to have procured it,' Hume, *History* vol. 6. 548 (NOTE [E], belonging to p. 134).

⁸⁸ 'The Whig party, for a course of near seventy years, has, almost without interruption, enjoyed the whole authority of government; and no honours or offices could be obtained but by their countenance and protection. But this event, which, in some particulars, has been advantageous to the state, has proved destructive to the truth of history, and has established many gross falsehoods, which it is unaccountable how any civilized nation could have embraced with regard to its domestic occurrences. Compositions the most despicable, both for style and matter, have been extolled, and propagated, and read; as if they had equalled the most celebrated remains of antiquity.' Hume's footnote here reads: 'Such as Rapin Thoyras, *Locke*, Sidney, Hoadley, &' Hume, *History* vol. 6, 533. Part of the short shrift of Locke must be due to the period covered by Hume in the *History*.

⁸⁹ Winkler, *Matters of Reason* is pioneering in this respect.

⁹⁰ Hume, *History* vol. 6. 541.

In Newton this island may boast of having produced the greatest and rarest genius that ever arose for the ornament and instruction of the species. Cautious in admitting no principles but such as were founded on experiment; but resolute to adopt every such principle, however new or unusual... While Newton seemed to draw off the veil from some of the mysteries of nature, he shewed at the same time the imperfections of the mechanical philosopher; and thereby restored her ultimate secrets to that obscurity, in which they ever did and ever will remain.⁹¹

Hume calls attention to three important methodological elements in Newton's natural philosophy: (a) Newton's commitment to an experimental method; (b) the cautious nature of Newton's methodology; (c) Newton's boldness once experiments have established a 'principle.' Hume equates Newton's methodology with Boyle's only on points (a) and (b), not point (c). So, Hume admires Newton's methodology, and sees it as a source of progress (although he somehow never mentions Newton's use of mathematics).⁹² So, is the road to true philosophy merely methodological? This cannot be gleaned with certainty from these passages because while Boyle and Newton are definitely to be said on the road to true philosophy, Hume does not claim they have reached a final destination. (Newton only unveiled 'some of the mysteries,' not all.) In particular, it is striking that in the last passage Hume does not praise Newton's doctrines at all. Rather, he turns Newton's achievement into something sceptical: on Hume's account Newton has shown the limits of knowledge.⁹³

Now one may reasonably think that because the *History* ends in 1688, that the open-ended character of the march along the road to true philosophy is an artefact of the temporal organization of the book.⁹⁴ But a more intriguing speculation is that Hume thinks *this* is the 'true philosophy' that understands the limits of knowledge. If this is so, then despite the dramatically changing narratives about how great men of the past pave the way to Hume and the changing evaluation of Bacon's and Newton's merits, Hume's philosophical views did not change very much throughout his career. While Hume has dropped talk of the regulative character of the

⁹¹ Hume, *History* vol 6, 541.

⁹² De Pierris, "Hume and Locke on Scientific Methodology" 320.

⁹³ On the curious status of the mechanical philosophy in Hume's thought see Schliesser, "Hume's Attack on Newton".

⁹⁴ Several readers have suggested this.

science of man, his scepticism is still offered from its perspective. In the *History*, Hume never tells us if he thinks the road to true philosophy can ever be completed.

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Index nominum

Addison, Joseph

Bacon, Francis

Barbeyrac, Jean

Bayle, Pierre

Berkeley, George

Boyle, Robert

Butler, Joseph

Cicero, Quintus Tullius

Clarke, Samuel

Collins, Anthony

Copernicus, Nicolaus

Cotes, Roger

Cudworth, Ralph

Descartes, René
Galileo, Galilei
Grotius, Hugo
Hobbes, Thomas
Hooke, Robert
Hume, David
Hutcheson, Francis
Kepler, Johannes
Leibniz, Gottfried Wilhelm von
Locke, John
MacLaurin, Colin
Mallebranche, Nicolas
Mandeville, Bernard
Maupertuis, Pierre-Louis Moreau de
Newton, Isaac
Pufendorf, Samuel von,
Ramsey, Michael
Shaftesbury, Anthony Ashley Cooper, 3rd Earl of,
Smith, Adam
Socrates
Spinoza, Benedictus de
Steele, Richard
Swift, Jonathan
Sydenham, Thomas
Thales
Voltaire
Xenophon
Wallis, John
Whiston, William
Wilkins, John
Wren, Christopher

Zeno

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