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Science and Skepticism

BERYL LOGAN

Very little scholarly attention has been devoted to Part 1 of Hume's *Dialogues Concerning Natural Religion*.¹ This lack has been addressed recently by Tweyman, who argues for the importance of this part in understanding the positions defended by the characters in the remainder of the dialogue,² in accordance with the types that Hume discusses in part 12 of the *Enquiry concerning Human Understanding*³—Cleanthes is a philosophical dogmatist who requires the application of excessive skepticism by Philo to turn to the approved position of mitigated skepticism, while Demea is and remains a religious dogmatist. In the present paper I will address the question of why the *Dialogues* continues beyond Part 1 in the face of the statement by Philo, who is generally considered to be Hume's spokesperson in the dialogue, that the inquiry being undertaken—the investigation into the nature of the Deity—is beyond human reason.

According to Philo, human reason ought not to conduct inquiries into subjects such as theology, whose objects of study are too great for, or beyond, human experience. It would seem, then, that if Philo's position is the acceptable one, the dialogue should not take place at all—determining the nature of the Deity is just not an appropriate exercise for human reason. According to Cleanthes, however, there is a parallel between theological inquiries and those of other, accepted sciences where evidence is presented and appropriate conclusions drawn in proportion to that evidence. Rejecting an equality between sciences is “a plain proof of prejudice and passion,” as there is no rational basis for that rejection.

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In this paper, I will argue that the dialogue is able to continue because there are two aspects of Philo's position in Part 1 that allow Cleanthes to present his argument in spite of Philo's claim regarding the limitations of human reason. These are: one, that Philo's position does not decisively render Cleanthes' position untenable, as they are not mutually exclusive; and two, if his position is that of the Pyrrhonian or excessive skeptic, whose criticisms are often exaggerated,⁴ then they would not carry the force of those coming from a more moderate skeptic whose position is corrected and methodized. I will show that this is, in fact, his position. In this context, I will address Tweyman's claim in his important book that Philo is a "moderate antecedent skeptic." If Tweyman were correct that Philo is presenting a mitigated skeptical position—the position Hume regarded as valuable and reasonable⁵—then his objections to *undertaking* an investigation of the nature of the Deity would be legitimate and the dialogue would not continue.⁶ But it does: Pyrrhonian or excessive skepticism cannot stop the inquiry from beginning.⁷ In both cases, the concerns raised by the skeptic only oppose the position of Cleanthes but do not defeat it.

I will first outline the types of skepticism, according to Hume, then set out the positions taken by Philo and Cleanthes in Part 1, followed by the two answers to the question, why does the dialogue continue.

Part 1—Skepticism

I begin with a brief synopsis of Hume's characterization of the various types of skepticism from the *Enquiry* which we learn from Tweyman's *Skepticism and Belief* are the guide for understanding the roles of the characters in the *Dialogues*: excessive and moderate, antecedent and consequent skepticism. Excessive antecedent skepticism is the type demonstrated by Descartes, which "recommends an universal doubt, not only of all our former opinions and principles, but also of our very faculties" (EHU 12.3; SBN 150). Hume regards this doubt to be incurable, if it were even possible.

Excessive consequent skepticism maintains the "fallaciousness of [our] mental faculties, or their unfitness to reach any fixed determination in all those curious subjects of speculation, about which they are commonly employed. Even our very senses are brought into dispute . . . and the maxims of common life are subjected to the same doubt as the most profound principles or conclusions of metaphysics and theology."

The moderate forms of skepticism are regarded by Hume approvingly. Moderate antecedent skepticism (applied before enquiry is begun) is "a necessary preparative to the study of philosophy, by preserving a proper

impartiality in our judgements, and weaning our mind from all those prejudices, which we may have imbibed from education or rash opinion” (EHU 12.4; SBN 150). The frequent review and examination, and slow and short progress, recommended by such a position, are the only means to reach stable and certain truth.

Moderate consequent or mitigated skepticism (applied after enquiry) “may be both durable and useful, and which may, in part, be the result of this Pyrrhonism, of excessive skepticism, when its undistinguished doubts are, in some measure, corrected by common sense and reflection.” (EHU 12.24; SBN 161) This is the favored position, and the one to which we should aspire. The mitigated skeptic exhibits modesty and reserve, and after having been “thoroughly convinced of the force of the PYRRHONIAN doubt, and of the impossibility, that anything, but the strong power of natural instinct, could free us from it,” is never “tempted to go beyond common life, so long as they consider the imperfection of those faculties which they employ, their narrow reach, and their inaccurate operations” (EHU 12.25; SBN 162). The excessive or Pyrrhonian position is a means to achieve an end, that of moving the dogmatist *to* the moderate or mitigated position.

Those who hold their position dogmatically (most of us, according to Hume) are unaware of counter-arguments and impatient with opposite sentiments. They exhibit pride, haughtiness, and obstinacy. Dogmatic reasoners (like Cleanthes) are turned from this position by exposure to the force of excessive skepticism, to make them aware of the narrow limits of human reason, to reduce the tenacity with which they hold onto their unfounded prejudices. This creates a lasting effect in limiting “our enquiries to such subjects as are best adapted to the narrow capacity of human understanding” (EHU 12.25; SBN 162). The dogmatist is brought to the correct judgement of “avoiding all distant and high enquiries, confin[ing] itself to common life, and to such subjects as fall under daily practice and experience” by being “thoroughly convinced of the force of the Pyrrhonian doubt” (EHU 12.25; SBN 162). The objections of the pyrrhonian skeptic create only a “momentary amazement and confusion” (EHU 12.23; SBN 160) and cannot be maintained even by the Pyrrhonian. Excessive skepticism is a means by which the dogmatist is brought to a position of mitigated skepticism, a proper and maintainable stance.⁸ Pyrrhonism or excessive skepticism is thus a tool to be used, not a position to be sustained.

The next section will outline the positions taken by Philo and Cleanthes in Part 1 on the value of skepticism and the strengths of science.

Part 2—Philo and Cleanthes in Part 1 of the *Dialogues*

We learn in his discussion with Demea in the opening paragraphs that Philo is contemptuous of those who “think nothing too difficult for human reason,” and exhorts us to “become thoroughly sensible of the weakness, blindness, and narrow limits of human reason”:

Let us duly consider its uncertainty and endless contrarities, even in subjects of common life and practice: Let the errors and deceits of our very senses be set before us; the insuperable difficulties, which attend first principles in all systems; the contradictions, which adhere to the very ideas of matter, cause and effect, extension, space, time, motion; and in a word, quantity of all kinds, the object of the only science, that can fairly pretend to any certainty or evidence. When these topics are displayed in their full light, as they are by some philosophers and almost all divines; who can retain such confidence in this frail faculty of reason as to pay any regard to its determinations in points so sublime, so abstruse, so remote from common life and experience? When the coherence of the parts of a stone, or even that composition of parts, which renders it extended; when these familiar objects, I say, are so inexplicable, and contain circumstances so repugnant and contradictory; with what assurance can we decide concerning the origin of worlds, or trace their history from eternity to eternity? (DNR 1.3, 98)

When there are certain aspects of even the objects of common life that remain a mystery to us—the ultimate explanations for the nature of familiar objects, the “secret powers by which one objects produces the other,” the cause of a principle in human nature, the “ultimate springs and principles” of the universe—how can we possibly draw conclusions where the objects are not part of common life? Later Philo states that:

When we carry our speculations into the two eternities, before and after the present state of things; into the creation and formation of the universe; the existence and properties of spirits; the powers and operations of one universal spirit, existing without beginning and without end; omnipotent, omniscient, immutable, infinite, and incomprehensible: We must be far removed from the smallest tendency to skepticism not to be apprehensive, that we have here gone quite beyond the reach of our faculties. . . . We are like foreigners in

a strange country, to whom everything must seem suspicious, and who are in danger every moment of transgressing against the laws and customs of the people. (DNR 1.10, 101–2)

So for Philo, even when human reasonings and speculations are limited to common life and practice, we are liable to fallacy and deceit, but our situation is far more doubtful when we are attempting to make claims about objects that are beyond the senses. More will be said about Philo's skepticism and his answer to Cleanthes on the matter of the lasting effect of Pyrrhonism in later sections.

Cleanthes' initial contribution to the *Dialogues* consists of criticism of Philo's position of skepticism with respect to the extent of human knowledge. He regards Philo to be indulging in a species of skepticism that questions one of the most fundamental principles of human experience, that of gravity: "We shall then see, whether you go out at the door or the window; and whether you really doubt, if your body has gravity, or can be injured by its fall" (DNR 1.5, 99); Cleanthes regards Philo to be jesting in insisting upon a skepticism that seems to deny our ability to make any sense of our perceptual experience. And, Cleanthes continues, correctly, that (excessive) skepticism is not a stance that can be maintained in the face of everyday life.

But what Cleanthes has failed to recognize, and what Philo then points out to him, is that one who indulges in skeptical considerations is changed permanently: "[i]f a man has accustomed himself to skeptical considerations on the uncertainty and narrow limits of reason, he will not entirely forget them when he turns his reflections on other subjects; but in all his philosophical principles and reasoning, I dare not say, in his common conduct, he will be found different" (DNR 1.8, 100).

According to Cleanthes, there is a discrepancy between the skeptic's doctrines and practices, reiterating his belief in the impossibility of maintaining a skeptical stance in the face of daily life. Here, however, his concern is with evidence: in spite of the consequent skeptic's belief that our mental faculties are unable to reach any fixed determination on abstract issues, a person would be "ridiculous" if he denied the conclusions in science that empirical evidence points to on the basis of the limitations of human capacities. "In reality," Cleanthes states,

would not a man be ridiculous, who pretended to reject Newton's explication of the wonderful phenomenon of the rainbow, because that explication gives a minute anatomy of the rays of light; a subject, forsooth, too refined for human comprehension? And what

would you say to one, who having nothing particular to object to the arguments of Copernicus and Galilaeo for the motion of the earth, should withhold his assent, on that general principle, That these subjects were too magnificent and remote to be explained by the narrow and fallacious reason of mankind? (DNR 1.12, 102)

But Cleanthes turns the skeptic's arguments 'round: in all the sciences, natural, mathematical, moral, and political, the skeptic is obliged, because of his or her questioning nature and doubt of the veracity of the senses and reliability of reason, to examine each and every issue on the basis of the evidence presented. Well, Cleanthes says, if that is how the skeptic must proceed in the empirical sciences, why will the skeptic not do the same in the theological and religious? "Why must conclusions of this nature be alone rejected on the general presumption of the insufficiency of human reason, without any particular discussion of the evidence? Is not such an unequal conduct a plain proof of prejudice and passion?" (DNR 1.13, 103).

The skeptic, Cleanthes maintains, is unable to draw a distinction between the sciences to be able to determine that the evidence of one is "better" than the evidence of another, so that the skeptic will be justified in accepting the conclusions of one science and rejecting the conclusions of the other—for Cleanthes, theology and natural religion—conclusions which are based on the available evidence. For example, the abstruse reasoning in the science of mechanics is not paralysed by even the speculative skeptic's doubt. Further, in astronomy, the conclusion that the earth revolves around the sun is accepted even by "monks and inquisitors" in spite of the fact that all the available sensory evidence or appearances would seem to lead to the conclusion that the sun revolves around the earth.

In both of these sciences, abstruse reasoning or conclusions contrary to appearances do not prevent the acceptance of the science's principles. Why then would Philo, "a man of so liberal a genius, and extensive knowledge" continue to reject the science of theology based on it containing abstruse reasoning and paradoxical conclusions? Shall Philo persist in his "undistinguished doubts," that is, doubts that are not corrected and methodized, in rejecting theological reasoning completely, without examining its merits, without distinguishing what is acceptable from what is not.

Cleanthes' next point is to argue for theology as a science, and to make this point he addresses himself to Demea, who regards religion to be a subject best taught by indoctrination and where questioning is only permitted once this indoctrination is complete, and who will in part 9 argue for both the necessity of a First Cause and the necessity of its existence. Cleanthes

might think that Demea would be receptive to the introduction of reason into theology, and the pairing of the atheist and skeptic, although Demea makes no response to Cleanthes' argument. Cleanthes presents several items of historical evidence to illustrate the connection between scientific reasoning and theology, the most detailed being the case of Locke:

LOCKE seems to have been the first Christian, who ventured openly to assert, that *faith* was nothing but a species of *reason*, that religion was only a branch of philosophy, and that a chain of arguments, similar to that which established any truth in morals, politics, or physics, was always employed in discovering all the principles of theology, natural and revealed. (DNR 1.17, 104–5)⁹

In sum, then, Cleanthes is arguing for the acceptance of theology and natural religion as a science: that the same standards of evidence ought to be applied by the skeptics in all cases, and that, rather than rejecting theological and religious conclusions because of the insufficiency of human reason given that the objects of this science are not objects of the senses, engage in a particular discussion of the evidence. Other sciences suffer from similar deficiencies, and yet their conclusions are accepted. If the skeptic “shows the firmest reliance on all the received maxims of science, morals, prudence, and behaviour” in spite of fallacious senses and erroneous understanding—because he goes out the door and not the window—then the maxims of the science of theology ought to be similarly accepted.

Part 3—Skepticism vs. Science

Now that we have examined the relevant texts to gain an understanding of skepticism and the positions of Cleanthes and Philo, we are able to examine each of their claims to determine why, in part 1, Cleanthes' position withstands Philo's skeptical warnings, so that, in spite of Philo's urging to limit the sphere of human reason to common sense and experience, Cleanthes is entitled to present his evidence. In other words, why does the dialogue continue beyond part 1? I offer two related answers to this question, the first given in this section and the second in the next section.

The first answer is that skeptical arguments given by Philo do not preclude Cleanthes from presenting his argument. According to Cleanthes, the skeptical position is faulty because it has not taken account of the particular evidence available to the senses that would allow a conclusion to be drawn in theological enquiries. As there are other respected sciences whose objects

are too sublime for the senses and which nevertheless draw conclusions based on what *is* observed—even though it may not directly be the object of the investigation—theology can proceed on the same grounds.

Cleanthes is drawing on the experimental method in the sciences, a well-established and accepted way of proceeding in those disciplines to say: if it is done here, why not in religious matters? Philo's citing of the limits of human reason is not directed at these activities as such, but at the direct knowability of the objects. Cleanthes, of course, never claims this. He states that there is evidence for these objects, and it is legitimate to examine that evidence, and to draw conclusions based on that evidence. In other sciences, astronomy for example, the conclusions drawn are opposite to appearances. For Cleanthes, religion is a science whose objects are knowable in the way that the objects of other sciences are knowable. Cleanthes thinks that, given the available evidence, a certain (inductive) conclusion is possible.

In sum, the fact that the dialogue continues indicates that, in this first round, Cleanthes' position has not been decisively undermined. The skeptical stance is only counterpoising to Cleanthes' view and does not exclude it. Philo's skeptical rejection of *all* inquiry without even considering the type of evidence that is available from which to infer a conclusion does not outweigh Cleanthes' proposal. While it is the case that the objects of religious reasoning are beyond our experience, some inferences can be made, as they are in other sciences, from the available evidence to objects not available to the senses, where the conclusion drawn is in proportion to the available evidence. A modern example may be found in elementary particle physics. Strange objects such as quarks, leptons, bosons, etc., are postulated to be the building blocks of the universe. Their existence, measured in fractions of milliseconds, is never observed, but is rather inferred from their effects as they excite gasses or produce a signal in a particle detector. Our current understanding of the origin, present, and future of the universe is based on our "knowledge" of and theorizing about some these unobservable particles. As Philo has not considered the evidence or its merit, nor its strength in supporting a conclusion, Cleanthes may continue with his presentation of the evidence.

The second answer to the question of why the dialogue continues beyond part 1 is concerned with the nature of Philo's skepticism. I will show in the next section that Philo's skepticism is excessive and is, again, not decisive but only counterpoising. As such, it does not prevent Cleanthes from presenting his Argument from Design.

Part 4—Philo the Pyrrhonian

In his important book, Tweyman maintains that Philo's position is that of moderate antecedent skepticism. In support, he states: "He [Philo] is not advocating the cessation of all inquiry: he is rather making the claim that because of known difficulties with our faculties and concepts even in regard to what is most familiar to us, we cannot proceed with assurance in those matters which are beyond common life and experience. This is not excessive skepticism, but what Hume in the first Enquiry spoke of as 'mitigated skepticism'" (Tweyman, 25).

Tweyman indicates that Philo has the necessary preparative to the study of philosophy which is a hallmark for Hume of the moderate skeptic. This is shown in his answer to Cleanthes' claim that there is no distinction between the Stoics and the skeptic. Philo points out that for each, there is a lasting effect from exposure to the position, so that the person who has been exposed is changed with respect to his or her views of the world following exposure. But I would suggest that while it may indeed be the case that Philo is a moderate skeptic because he already possesses that effect and understands the power of applying the Pyrrhonian tool to bring about change in others, that does not imply that he *acts* as a moderate skeptic—in fact, we know that benefit to the dogmatist arises from exposure to pyrrhonian or excessive arguments, not to moderate ones. (Mitigated skepticism is the position I must hold in order for me to do philosophy, but it is not the preparative used to bring me to do philosophy.) One exaggerates for effect—the dogmatist is exposed to the excessive arguments to come to the middle ground.

I will now show that Philo's claims of the limits of human reason are pyrrhonian or excessive of the consequent type rather than moderate of the antecedent type, as Tweyman claims.¹⁰ This will show that Philo's position in part 1 is not an acceptable or reasonable one, so that his claims do not prevent Cleanthes from presenting his argument in part 2.

We recall that excessive antecedent skepticism is, for Hume, an impossible and incurable position, but that excessive consequent skepticism, so named because it is empirical in nature, is characterized by "either the absolute fallaciousness of [our] mental faculties, or their unfitness to reach any fixed determination in all those curious subjects of speculation . . . the maxims of common life are subjected to the same doubt as the most profound principles or conclusions of metaphysics and theology" (EHU 12.5; SBN 150). And this appears to be what Philo is suggesting in his statement the earlier-quoted paragraph at DNR 1.3, 98. We are alerted to a number of considerations: first, the narrow limits of human reason, and to "its uncertainty

and endless contrarities, *even in the subjects of common life and practice* (emphasis added); next, the “errors and deceits” of the senses; then, the difficulties attendant to metaphysics (“the very ideas of matters, cause and effect, extension, space, time, motion”), mathematics “quantity of all kinds”), and theology. When the inner nature of familiar objects is inexplicable, how can we decide on the remote and distant objects of theological inquiry? This seems to fit what Hume has to say about excessive consequent skepticism. Tweyman states that Philo’s position in part 1 is not excessive skepticism as “[h]e is not advocating the cessation of all inquiry.” This would seem to be Hume’s view on excessive antecedent skepticism, but not of excessive consequent skepticism—this is not all there is to excessive skepticism.

I do allow, however, that in the paragraphs at DNR 1.8–10 (100–1), Philo’s position is more moderate. But here he is describing the condition of the person who has already been subjected to excessive skepticism: while Cleanthes had been correct in chiding Philo for his excessive skepticism, he was incorrect in not recognizing the lasting value that exposure to such skepticism brings. He sees only that it cannot be maintained consistently: that if the skeptic can do it sometimes, the skeptic can do it all times, like the Stoic. Cleanthes claims, rightly, that excessive skepticism is an untenable position: “[i]t is impossible for him to persevere in this total skepticism, or make it appear in his conduct for a few hours. External objects press in upon him: Passions solicit him . . . [he] will not be able, during any time, to preserve the poor appearance of skepticism” (DNR 1.6, 99). Philo’s response consists of instruction to Cleanthes on the effect that lingers after exposure to skeptical considerations.

It is this lasting value that Philo discusses in the paragraphs at DNR 1.8–10 (100–1). He is at this time speaking from the vantage point of one who is well-versed not only in the uses and value of excessive skepticism but also in the necessity we all lie under to act, live and converse like all others even with exposure to such excessive skepticism. Those who have been exposed are, however, different from those who have not. Philo is here speaking from his own position of mitigated skepticism, not from the excessive skepticism he adopts to turn Cleanthes: he is telling Cleanthes that the excessive skepticism he stated at DNR 1.3 (98) to counter those “who enter a *little* into study and enquiry, think nothing too difficult for human reason; and presumptuously breaking through all fences, profane the inmost sanctuaries of the temple” (emphasis added). When he immediately addresses Cleanthes—who has yet to speak—with his remedy for “this profane liberty,” which is exposure to skepticism, we are alerted to the fact that Cleanthes will be the target of his pyrrhonic attention.

It is through the tool of excessive skepticism that Philo will show Cleanthes that there are indeed some things that *are* too difficult for human reason, but it is not the case that *all* parts of our perceptual experience are open to doubt. When the Pyrrhonian skeptic insists on philosophical objections to our reasonings concerning matters of fact, he or she is raising issues regarding our customary inference from cause to effect based on our natural instinct (see EHU 12.7; SBU 151). For a time, all assurance and conviction are destroyed, but, as no durable good can result from these speculations, their effect is only temporary. But only through exposure to the indiscriminate doubts of excessive skepticism—the doubts of the Pyrrhonian are undistinguished because the Pyrrhonian does not differentiate between what should be doubted and what should not be doubted—will the dogmatist be brought to a suspense of judgment. Only then will the dogmatist be loosened from a tenacious hold on prejudiced principle. So when the Pyrrhonian claims that nothing beyond the senses is a subject of human reason, it draws the dogmatist into a proper and reasoned examination of what *is* appropriate to trust. In part 1, Philo does not engage in a proper examination because he rejects theological questions as an appropriate subject for examination without consideration of the force and effectiveness of the evidence in drawing conclusions. If Philo were acting as a moderate antecedent skeptic in part 1, then he would be taking the appropriate steps to achieve accurate, stable and impartial judgments. But he has not yet demonstrated these techniques and in fact will continue to act as Pyrrhonian until the last pages of the dialogue.

The dialogue continues because nothing has been raised so far in part 1 that would prevent it from continuing.

NOTES

1 References to Hume's *Dialogues* are taken from the Tweyman edition (Routledge, 1992) and are cited in the paper by "DNR" followed by the relevant part, paragraph, and page number.

2 Stanley Tweyman, *Skepticism and Belief in Hume's Dialogues Concerning Natural Religion* (Martinus Nijhoff, 1986).

3 References to this text, by section and paragraph number, are to David Hume, *An Enquiry concerning Human Understanding* ("EHU"), ed. Tom L. Beauchamp (Oxford: Clarendon Press, 2000). I also provide page references to David Hume, *Enquiries concerning Human Understanding and concerning the Principles of Morals*, ed. L. A.

Selby-Bigge, 3rd ed., revised by P. H. Nidditch (Oxford: Clarendon Press, 1975), hereafter "SBN."

4 For example, in part 2, Philo focuses exclusively on the dissimilarities between the world and machines and does not allow for any similarities.

5 See, for example EHU 12.24 (SBN 161).

6 The discussion of whether Philo is a moderate or an excessive skeptic in part 1 does not affect Tweyman's view that Philo is an excessive skeptic in later parts in order to effect Cleanthes' turn. I do not dispute this view, only the characterization of Philo's position in part 1.

7 But it can, and will, address the legitimacy of the inference from effect to cause in Cleanthes' design argument.

8 The adjective "moderate" is applied by Hume to the approved form of antecedent skepticism. The term "mitigated" skepticism is the term he applied to what would be called, on the above pattern, moderate consequent skepticism. It is achieved when philosophical speculations are corrected by common sense and reflection.

9 History is not, however, a very reliable source of evidence, according to Philo. At one point in history, atheism was considered to result "from the presumptuous questioning of received opinions, and from a belief, that human reason was equal to every thing" (DNR 1.19, 105). At the present, however, it is only through human reason that we may be lead into religion.

10 It is also important to note that characterizing Philo as a Pyrrhonian skeptic in part 1 rather than a moderate skeptic as Tweyman claims does not affect any of Tweyman's arguments for Philo's Pyrrhonism in subsequent parts.