



SERRC
Social Epistemology
Review & Reply Collective

<http://social-epistemology.com>
ISSN: 2471-9560

Defending Some Objections to Moti Mizrahi's Arguments for Weak Scientism

Christopher Brown, University of Tennessee – Martin

Brown, Christopher M. "Defending Some Objections to Moti Mizrahi's Arguments for Weak Scientism." *Social Epistemology Review and Reply Collective* 7, no. 2 (2018): 1-35.

Short url <https://wp.me/p1Bfg0-3TE> (provided by WordPress)

In 2017a,¹ Moti Mizrahi distinguishes a position he calls *Weak Scientism*—of all the knowledge we have, scientific knowledge is the best—from what he calls *Strong Scientism*—the only real kind of knowledge is scientific knowledge. Whereas *Strong Scientism* may have serious problems, Mizrahi argues *Weak Scientism* is a defensible position. In my 2017 response, I raise some objections to the arguments Mizrahi employs to defend *Weak Scientism*. Mizrahi replies to my objections in 2017b. This essay has two parts. In the first part, I briefly summarize both Mizrahi’s arguments in defense of *Weak Scientism* in 2017a and the problems for Mizrahi’s arguments I identify in my 2017 essay. In the second part, I offer replies to Mizrahi’s objections in 2017b.

Mizrahi’s Arguments for *Weak Scientism* and Some Objections to those Arguments

In 2017a, Mizrahi does at least three things. First, he distinguishes persuasive and non-persuasive definitions of scientism and argues for adopting the latter rather than the former. Second, Mizrahi distinguishes *Strong Scientism* from the position he defends, *Weak Scientism*. Third, Mizrahi defends *Weak Scientism* in two ways. The first way Mizrahi defends *Weak Scientism* is by attempting to defeat the following two objections to that position:

- (O1) It is *epistemically impossible* to offer scientific evidence for *Weak Scientism*.
- (O2) It is *viciously circular* to support *Weak Scientism* with scientific evidence.

Where Mizrahi’s attempt to defeat O1 is concerned, he offers what he takes to be a scientific argument for *Weak Scientism*. Here follows a schema of the argument:

7. One kind of knowledge is better than another quantitatively or qualitatively.²
8. Scientific knowledge is *quantitatively* better than non-scientific knowledge (including philosophical knowledge) in terms of the number of journal articles published and the number of journal articles cited.
9. Scientific knowledge is *qualitatively* better than non-scientific knowledge (including philosophical knowledge) insofar as scientific theories are more successful than non-scientific theories (including philosophical theories) where the *success* of a theory is understood in terms of its explanatory, instrumental, and predictive success.
10. Therefore, scientific knowledge is better than non-scientific forms of knowledge (including philosophical knowledge) both quantitatively and qualitatively [from 8 and 9].
11. Therefore, scientific knowledge is better than non-scientific forms of knowledge (including philosophical knowledge) [from 7 and 10].

¹ I’m grateful to James Collier for inviting me to reply to Moti Mizrahi’s “In Defense of *Weak Scientism*. A Reply to Brown” (2017b) and Merry Brown for providing helpful comments on an earlier draft of this essay.

² For the sake of consistency and clarity, I number my propositions in this essay based on the numbering of propositions in my 2017 response.

For the sake of ease of reference, let us call the argument above, *Mizrahi's Argument*. A second way Mizrahi defends Weak Scientism in his 2017a paper is directly by way of Mizrahi's Argument. For if Mizrahi's Argument is sound, it not only shows O1 is false, but it shows *Weak Scientism* is true.

In my 2017 essay, I raise a number of objections to what Mizrahi argues in 2017a. First, I argue *Weak Scientism* is not really a form of scientism. Second, I argue Mizrahi does not give an advocate of *Strong Scientism* good reasons to adopt *Weak Scientism*. Third, I contend that, contrary to what Mizrahi supposes (2017a, 354), *Weak Scientism* is not relevant by itself for mediating the debate between *defenders of philosophy* and *those who think philosophy is useless*. Fourth, I argue that Mizrahi's Argument presupposes philosophical positions that many academics reject, so that Mizrahi's Argument is not as powerful as he seems to think. Fifth, I argue that some of the background philosophical premises in Mizrahi's Argument are question-begging.

Sixth, I contend that Mizrahi's primary argument for *Weak Scientism*—Mizrahi's Argument—is a philosophical argument and not a scientific argument, and so he does not defeat objection O1. Seventh, I argue that Mizrahi does not defeat objection O2, since there is a way to think about the defensibility of deductive inference that does not involve making inferences. Finally, I offer two counter examples to Mizrahi's contention that the use of a persuasive definition of a term necessarily involves both begging the question against those who reject such a definition and a failure to provide reasons for thinking that definition is true.

Responding to Mizrahi's Objections

I now respond to objections Mizrahi raises in 2017b to my 2017 essay. In each section of this part I highlight an objection I raised for Mizrahi 2017a in my 2017 response, I explain Mizrahi's response to that objection in 2017b, and I offer a response to Mizrahi's response. In many cases Mizrahi has misconstrued one of my objections, and so I here clarify those objections. In other cases, Mizrahi misses the point of one of my objections, and so I try to make those objections clearer. Still in other cases, Mizrahi makes some good points about objections I raise in 2017, although not points fatal to those objections, and so I revise my objections accordingly. Finally, in some cases Mizrahi asks for more information and so I give it, at least where such information is relevant for evaluating Mizrahi's defenses of *Weak Scientism*.

Is *Weak Scientism* Really Scientism?

In 2017, I argue that *Weak Scientism* is not really strong enough to count as scientism. For, given *Weak Scientism*, philosophical knowledge may be nearly as valuable as scientific knowledge. In fact, given that *Weak Scientism* claims only that scientific knowledge is better than non-scientific *academic* knowledge (see, e.g., Mizrahi 2017a, 354; 356), *Weak Scientism* is compatible with the claim that non-academic personal knowledge, moral knowledge, and religious knowledge are *all better than scientific knowledge*. Certainly, Mizrahi's defenses of *Weak*

Scientism in 2017a and 2017b don't show that scientific knowledge is better than non-academic forms of knowledge acquisition. Traditional advocates of scientism, therefore, will not endorse *Weak Scientism*, given their philosophical presuppositions.

Mizrahi raises two objections to my arguments here. First, even if I'm right that one could think about philosophical knowledge as nearly as valuable as scientific knowledge, this does nothing to show *Weak Scientism* is not strong enough to count as scientism, since "one of the problems with the scientism debate is precisely the meaning of the term 'scientism'" (Mizrahi 2017a, 351-353; qtd. in Mizrahi 2017b, 10). Second, Mizrahi notes that scientism is an epistemological thesis and not a psychological one and that he sets out to show what traditional advocates of scientism *should* accept, and not what they *would* accept (2017b, 11).

Say *Strong Scientism* is false, if only because it is self-refuting and subject to good counter-examples. The questions remain, *why think Weak Scientism, particularly the weak version of that view Mizrahi ends up defending in 2017a, is really a form of scientism?* And *why think advocates of Strong Scientism should accept Weak Scientism?*

Take the first question. As Mizrahi's list of citations at the beginning of 2017a makes clear, there already exist very entrenched linguistic conventions with respect to the meaning of 'scientism.' As Mizrahi notes, one such meaning is the pejorative or "persuasive" sense of 'scientism' that Mizrahi does not like, which (again as Mizrahi himself points out) is quite pervasive, e.g., scientism is an "exaggerated confidence in science (Williams 2015, 6)" (Mizrahi 2017a, 351), and "an exaggerated kind of deference towards science (Haack, 2007, 17; 18)" (Mizrahi 2017a, 351). Mizrahi also mentions persuasive descriptions of scientism in the work of Pigliucci and Sorrell. Why does this diverse group of philosophers use the word 'scientism' in this way? Perhaps because it is simply *one* of the meanings the word 'scientism' has come to have in the English language.

Consider, for example, the entry for 'scientism' in the *Oxford English Dictionary*. It has two main headings. Under the first heading of 'scientism' is a descriptive use of the term: "A mode of thought which considers things from a scientific viewpoint." This meaning of 'scientism' is not relevant for our purposes since *Weak Scientism* is a normative and not a descriptive claim. Under the second heading of 'scientism' we have:

Chiefly *depreciative* [*emphasis in the original*]. The belief that only knowledge obtained from scientific research is valid, and that notions or beliefs deriving from other sources, such as religion, should be discounted; *extreme or excessive faith in science or scientists* [*emphasis mine*]. Also: the view that the methodology used in the natural and physical sciences can be applied to other disciplines, such as philosophy and the social sciences (2017).

For better or worse, something such as the following so-called *persuasive* definition of *scientism* is thus one of the meanings the word 'scientism' has come to have in the English language:

(*Scientism1*): having an exaggerated confidence in science or the methods of science.

Presumably, some philosophers use ‘scientism’ in the sense of *Scientism1* because they think some contemporary thinkers *have an exaggerated confidence in science*, it is convenient to have a word for that point of view, and, since there is already a term in the English language which picks out that sort of view, namely, ‘scientism’, philosophers such as Williams, Haack, Sorrell, and Pigliucci reasonably use ‘scientism’ in the sense of *Scientism1*.

But what does this have to do with the question whether *Weak Scientism* is really a species of *scientism*? As we’ve seen, one of the meanings commonly attached to ‘scientism’ is the idea of having an exaggerated or improper view of the power or scope of science. But as Mizrahi also notes in 2017a, there is a second sort of meaning often attached to ‘scientism’:

(*Scientism2*): the view that states the methods of the natural sciences are the only (reliable) methods for producing knowledge or the methods of the natural sciences should be employed in all of the sciences or all areas of human life.

Mizrahi cites Richard Williams (Mizrahi 2017a, 351) and Alex Rosenberg (2017a, 352) as examples of philosophers who use ‘scientism’ with the meaning identified in *Scientism2*. In addition, as we saw above, this is (part of) the second entry for ‘scientism’ in the *Oxford English Dictionary*. This is good evidence that *Scientism2* picks out one meaning that ‘scientism’ currently has in the English language.

The prevalence of *Scientism2* as a meaning of ‘scientism’ goes some distance towards explaining the commonality of the use of *Scientism1* as a meaning of ‘scientism’, since many philosophers, historians, psychologists, sociologists, and natural scientists think it is false that *science is the only method for (reliably) producing knowledge or the methods of the natural sciences should be employed in all of the sciences or all areas of human life*.

Of course, here, as in other areas of life, what some people think is a vice others think a virtue. So philosophers such as Alex Rosenberg think ‘scientism’ in the sense of *Scientism2* is true, but reject that acceptance of *Scientism2* represents “an exaggerated confidence in science,” since, in their view, the view that science is the only reliable path to knowledge is simply the sober truth.

What I am calling *Scientism2* Mizrahi calls *Strong Scientism*, a view he thinks has problems (see Mizrahi 2017a, 353-354). Furthermore, Mizrahi argues that *Weak Scientism* is the view that advocates of *Strong Scientism* should adopt and the view philosophers who want to defend philosophy against charges of uselessness should *attack* (2017a, 354). But, as I point out in 2017, there is a huge logical gap between *Strong Scientism (Scientism2)* and *Weak Scientism*. To see this, recall that Mizrahi defines *Weak Scientism* as follows:

(*Weak Scientism*): Of all the knowledge we have, scientific knowledge is the *best* knowledge (2017a, 354).

In my 2017 response, I suggest that, as we take into account the philosophical premises at play in Mizrahi's Argument, it turns out *Weak Scientism* becomes an even weaker thesis. For example, consider a strong interpretation of *Weak Scientism*:

(*Fairly Strong Weak Scientism*): Of *all* the knowledge we have, including non-academic forms of knowledge such as *common sense* knowledge, *personal* knowledge, *moral* knowledge, and *religious* knowledge, *scientific* knowledge is the *best* knowledge.

There is a big logical gap between *Strong Scientism* (*Scientism2*) and *Fairly Strong Weak Scientism*. For *Strong Scientism* (*Scientism2*) states that scientific knowledge is *the only kind of real* knowledge (or the only kind of *reliable* knowledge). But, for all *Fairly Strong Weak Scientism* says, scientific knowledge is *just barely better*, e.g., just barely more reliable, than religious knowledge or philosophical knowledge. There's a huge logical gap between *Strong Scientism* (*Scientism2*) and *Fairly Strong Weak Scientism*.

As Mizrahi notes (2017a, 354; 356), and to which his practice in 2017a conforms, he is not interested in defending *Fairly Strong Weak Scientism*. This means that Mizrahi really has something such as the following in mind by *Weak Scientism*:

(*Very Weak Scientism*) When it comes to the kinds of knowledge produced within the *academy*, scientific knowledge is the best.

But there is a big logical gap between *Strong Scientism* (*Scientism2*) and *Very Weak Scientism*. In fact, as I point out in my 2017 article, given other philosophical presuppositions Mizrahi makes or positions Mizrahi defends in 2017a, the view Mizrahi actually defends in 2017a gets even (and ever) weaker:

(*Very, Very Weak Scientism*) When it comes to the knowledge that is produced by *academic publications*, scientific publications are the best.

(*Very, Very, Very Weak Scientism*): When it comes to the knowledge that is produced by *academic journals*, knowledge that comes from scientific academic journals is the best.

Now, acceptance of *Very, Very, Very Weak Scientism* leaves open the possibility that there is *philosophical* knowledge produced by way of monographs, lectures, and conversations that is better than any sort of scientific knowledge. And, as I point out in my 2017 article, ultimately, something such as *Very, Very, Very, Weak Scientism* is the view Mizrahi defends in 2017a. Is *Very, Very, Very, Weak Scientism* really scientism? Given the conventional uses of 'scientism' and the huge logical gap between *Weak Scientism*—*even on the strongest reading of the position*—and *Scientism2*, it doesn't make sense to think of Mizrahi's *Weak Scientism* as a species of *scientism*.

Consider some other reasons for thinking it strange that *Weak Scientism* counts as a species of *scientism*. Imagine a person named Alice, about whom, let us say for the sake of argument, the

following statements are true: (a) Alice thinks there is a God; (b) she knows the reasons for not thinking there is a God; (c) she has published influential attempted defeaters of the arguments that there is no God; (d) even though she reasonably thinks there are some good, if not compelling, arguments for the existence of God, she thinks it reasonable to believe in God without argumentative evidence; (e) she has published an influential account, by a prestigious academic press, of how a person S can be rational in believing in God, although S does not have good argumentative evidence that God exists; (f) she has published a much discussed argument that belief in God makes better sense of an evolutionary account of the human mind (understood as a reliable constellation of cognitive powers) than does an atheistic evolutionary one, and (g) she thinks that *modern science is the greatest new intellectual achievement since the fifteenth century*. If believing modern science is the greatest new intellectual achievement since the fifteenth century is (roughly) equivalent to *Weak Scientism*, then Alice is (roughly) an advocate of *Weak Scientism*. But it seems odd, to say the least, that Alice—or someone with Alice’s beliefs—should count an advocate (even roughly) of *scientism*.

One may also reasonably ask Mizrahi why he thinks the position picked out by *Weak Scientism* is a species of *scientism* in the first place. One may be inclined to think *Weak Scientism* is a species of *scientism* because, like *Strong Scientism*, *Weak Scientism* (as formulated by Mizrahi) *puts too high a value on scientific knowledge*. But Mizrahi won’t define or describe *scientism* in that way for the reasons he lays out in 2017a.

Given the conventional uses of ‘scientism,’ the huge logical gap between *Weak Scientism* and *Scientism2*, and Mizrahi’s refusal to employ a persuasive definition of *scientism*, it is not clear why Mizrahi’s *Weak Scientism* should count as a species of *scientism*. A friendly suggestion: perhaps Mizrahi should simply coin a new *word* for the position with respect to scientific knowledge and non-scientific forms of academic knowledge he wants to talk about, rather than simply coining a new (and problematic) *meaning* for ‘scientism.’

Mizrahi’s Argument Does Not Show Why Advocates of *Strong Scientism* Should Endorse *Weak Scientism*

Given Mizrahi’s interest in offering “a defensible definition of scientism” (2017a, 353), which, among other things, means an alternative to *Strong Scientism* (2017a, 353-354), we can also consider the question, *why think advocates of Strong Scientism should adopt Weak Scientism?* Mizrahi does not argue in 2017a, for example, that there are (reliable) forms of knowledge other than science. His argument simply presupposes it. But if Mizrahi wants to convince an advocate of *Strong Scientism* that she should prefer *Weak Scientism*, Mizrahi can’t presuppose a view the advocate of *Strong Scientism* believes to be true (particularly, if it’s not even clear that *Weak Scientism* is a form of *scientism*).

In addition, as I try to show in my 2017 response, Mizrahi’s Argument relies on other philosophical positions that advocates of *Strong Scientism* do not accept and Mizrahi does not offer good philosophical arguments for these views. Indeed, more often than not, Mizrahi has simply stipulated a point of view that he needs in order to get Mizrahi’s Argument off the ground, e.g., that *we should operationalize what philosophy is* or *we should operationalize what*

counts as knowledge in a discipline (for more on these points, see below). If philosophical premises that the advocate of *Strong Scientism* do not accept are doing the heavy lifting in Mizrahi's Argument as I claim, premises which are undefended from the perspective of the advocate of Strong Scientism, then it's not clear why Mizrahi thinks advocates of *Strong Scientism* should accept *Weak Scientism* based upon Mizrahi's Argument.

For even *Fairly Strong Weak Scientism* is a lot different from the view that advocates of *Strong Scientism* such as Alex Rosenberg hold. Here's Rosenberg: "If we're going to be scientific, then we have to attain our view of reality from what physics tells us about it. Actually, we'll have to do more than that: we'll have to embrace physics as the whole truth about reality" (2011, 20). Indeed, it seems the only reason an advocate of Strong Scientism such as Rosenberg would be even tempted to consider adopting *Weak Scientism* is because it contains the word 'scientism.'

But once the advocate of *Strong Scientism* sees that an advocate of *Weak Scientism* admits the possibility that there is real knowledge other than what is produced by the natural sciences—indeed, in Mizrahi 2017a and 2017b, *Weak Scientism* is compatible with the view that common sense knowledge, knowledge of persons, and religious knowledge are each better than scientific knowledge—the advocate of *Strong Scientism*, at least given their philosophical presuppositions, will reject *Weak Scientism* out of hand. Given also that Mizrahi has not offered arguments that there is real knowledge other than scientific knowledge, and given that Mizrahi has not offered arguments for a number of views required for Mizrahi's defense of Weak Scientism (see below), views that advocates of Strong Scientism reject, Mizrahi also does not show why advocates of Strong Scientism *should* adopt *Weak Scientism*.

How Is *Weak Scientism* by Itself Relevant Where the *Philosophy-Is-Useless-Objection* Is Concerned?

Mizrahi seems to think *Weak Scientism* is relevant for assessing the philosophy-is-useless claim. He states: "I propose . . . *Weak Scientism* is the definition of scientism those philosophers who seek to defend philosophy against accusations of uselessness . . . should attack if they want to do philosophy a real service" (2017, 354). But why think a thing like that?

In his response to my 2017 essay, Mizrahi gets his reader off on the wrong foot by reinterpreting my question as "Does Weak Scientism entail that philosophy is useless?" (2017b, 9; 11). Mizrahi says that I "object to [Mizrahi's] argument in defense of *Weak Scientism* by complaining that *Weak Scientism* does not entail philosophy is useless" (2017b, 11) and he goes on to point out that he did not intend to defend the view that philosophy is useless.

But this is to miss the point of the problem (or question) I raise for Mizrahi's paper in this section, which is, "how is *Weak Scientism* by itself relevant where the philosophy-is-useless-objection is concerned?" (Brown 2017, 42). For *Weak Scientism* itself implies nothing about

the degree to which philosophical knowledge is valuable or useful other than stating scientific knowledge is *better* than philosophical knowledge.

Given Mizrahi's definition of *Weak Scientism*, (a) one could accept *Weak Scientism* and think philosophy is extremely useful (there is no contradiction in thinking philosophy is extremely useful but scientific knowledge is better than, for example, more useful than, philosophical knowledge); (b) one could accept *Weak Scientism* and think philosophy is not at all useful (one may be thinking philosophical knowledge is real but pretty useless and that scientific knowledge is better than philosophical knowledge); (c) one could obviously reject *Weak Scientism* and think philosophy very useful (depending upon what one means by 'philosophy is useful'; more on this point below), and (d) one could reject *Weak Scientism* and think philosophy useless (as some advocates of *Strong Scientism* surely do).

Accepting (or rejecting) *Weak Scientism* is compatible both with thinking philosophy is very useful and with thinking philosophy is useless. So it's hard to see why Mizrahi thinks "*Weak Scientism* is the definition of scientism those philosophers who seek to defend philosophy against accusations of uselessness . . . should attack if they want to do philosophy a real service" (2107a, 354).

Problems for Mizrahi's Argument, Given the Number and Kind of Philosophical Assumptions at Play in the Argument

In his 2017b response, Mizrahi makes some general criticisms of my strategy in criticizing Mizrahi's Argument as well as offering particular objections to particular arguments I make in my 2017 essay with respect to Mizrahi's Argument. In response, then, I first say a few things about Mizrahi's general criticisms. Second, I respond to Mizrahi's particular objections.

Mizrahi's first general criticism of my approach is that I simply criticize Mizrahi's Argument by proposing certain "what ifs?" (2017b, 9). His objection seems to be the following:

25. "The question of whether scientific knowledge is superior to non-scientific [academic] knowledge is a question that can be answered empirically" (2017b, 10).
26. "Therefore, in order to pose a serious challenge to my defense of Weak Scientism, Brown must come up with more than mere 'what ifs'" (2017b, 10).

The argument is clearly an enthymeme. Mizrahi presumably is presupposing:

27. If the question of whether scientific knowledge is superior to non-scientific [academic] knowledge is a question that one can answer empirically, then, in order to pose a serious challenge to my defense of Weak Scientism, Brown must come up with more than mere "what ifs" [assumption].

But why accept 27? Presumably because we are supposed to privilege empirical (I read Mizrahi's 'empirical' here as 'experimental/scientific') evidence over non-empirical evidence. But that's just assuming the sort of thing that is at issue when debating the truth or falsity of scientism. So Mizrahi's response here begs the question against those who raise critical questions about Mizrahi's Argument and *Weak Scientism*.

In addition, premise 25 is one of the propositions up for debate here. Mizrahi thinks Mizrahi's Argument is a scientific argument. I disagree, for reasons stated in my 2017 article (more on this below).

A second general criticism Mizrahi raises for my critique of Mizrahi's Argument concerns my habit of speaking about "controversial philosophical assumptions" at play in Mizrahi's Argument. First, Mizrahi does not like my use of the word 'assumptions' in reference to the (implied) premises of Mizrahi's Argument (2017b, 12; 14) since, according to Mizrahi, "an assumption is a statement that is taken to be true without justification or support."

I just have to confess that I don't think 'assumption' *necessarily* has this connotation. I certainly did not intend to communicate in every case I use the word 'assumption' in my 2017 article that Mizrahi had not supplied any justification or support for such propositions (although I do think it is the case that Mizrahi does not offer justification for some of the [implied] premises in Mizrahi's Argument). For better or for worse (probably worse) I was thinking of 'assumption' as a synonym of 'stipulation' or 'presupposition' or 'premise.' But I will try to be more precise in what follows.

Second, Mizrahi takes me to task for calling the (implied) premises of Mizrahi's Argument *controversial*, since I don't say why they are controversial and, as Mizrahi states with respect to his 2017a, "the way I have characterized knowledge is exactly the way others in the scientism debate understand knowledge (see, e.g., Peels 2016, 2462), which means that my characterization of knowledge is *not* controversial as far as the scientism debate in philosophy is concerned" (2017b, 13; see also 14-15). In addition, by calling a premise 'controversial', Mizrahi takes me to mean that I am saying it is *doubtful* (2017b, 14-15), which, if true, would raise some puzzles for my own responses to Mizrahi 2017a.

In response, my comment in 2017 that the (implied) premises in Mizrahi's Argument are *controversial* was neither intended as commentary on a narrow philosophical discussion—what Mizrahi calls "*the* scientism debate in philosophy" (2017b, 13; emphasis mine)—nor meant simply to point out that it is possible to doubt those premises (Mizrahi 2017b, 14-15). Rather, what I intended to say (and should have made clearer) is that the (implied) premises of Mizrahi's Argument are controversial when we contrast them with the views of a *number* of different philosophical schools of thought.

That is to say, I meant to suggest that a healthy minority of contemporary philosophers will reject those premises, and have reasons for rejecting them, where that healthy minority consists (just to name a few schools of thought that have contemporary adherents) of some Platonists, Aristotelians, neo-Aristotelians, Augustinians, Thomists, Scotists, Suarezians,

Ockhamists, Cartesians, Leibnizians, Kantians, neo-Kantians of various sorts, Phenomenologists, Existentialists, Whiteheadians, as well as quite a few non-naturalist analytic philosophers.

Indeed, if we practice “the democracy of the dead,” as G. K. Chesterton suggested is only fair,³ the majority of philosophers in the past would reject the implied premises in Mizrahi’s Argument; or, if that’s a bit anachronistic, they would reject premises at least analogous to those in Mizrahi’s Argument insofar as they would not reduce philosophical knowledge to what professional philosophers make public; think of, to take just one example, Plato’s criticism of the professional philosophers of his day as false philosophers in the *Phaedo*⁴ and the *Republic*.⁵

Of course, there are non-philosophers too, including practicing natural scientists (past and present) who (would) also reject *Weak Scientism* and many of the (implied) premises in Mizrahi’s Argument. One gets the impression from both 2017a and 2017b that Mizrahi does not think Mizrahi’s Argument is at all controversial. It was for these reasons and in the sense specified here that I emphasized in my 2017 response that a number of (implied) premises in Mizrahi’s Argument are, in fact, very controversial.

In addition, Mizrahi himself cites contemporary philosophers engaged in “the scientism debate in philosophy” who reject Mizrahi’s reduction of philosophy and philosophical knowledge to what philosophers publish (see, e.g., Sorrell 1994 and Haack 2017). There are other professional philosophers engaged in debates about the plausibility of scientism who reject quite a few of the premises in Mizrahi’s Argument (see, e.g., Brown 2011, the authors of some of the papers in Williams & Robinson 2015, and the work of analytic philosopher, Edward Feser, who has offered criticisms of scientism in: 2008, 83-85; 2010a; 2010b, and 2014, 9-24).

Third, Mizrahi thinks I should not call his assumptions *philosophical* unless I have first defined ‘philosophy’ (2017b, 13; 14), particularly since I claim that his argument is a philosophical and not a scientific argument (2017b, 9; 15). He states: “what Brown labels as ‘philosophical’ is not really philosophical, or at least he is not in a position to claim that it is philosophical, since he does not tell us what makes something philosophical (other than being work produced by professional philosophers, which is a characterization of ‘philosophical’ that he rejects)” (2017b, 14).

I do not define the nature of philosophy in my 2017 response to Mizrahi’s 2017a. I supposed, perhaps wrongly, that such an endeavor was altogether outside the scope of the project of offering some critical comments on a philosophy paper. Of course, as Mizrahi no

³ “Tradition means giving votes to the most obscure of all classes, our ancestors. It is the democracy of the dead. Tradition refuses to submit to the small and arrogant oligarchy of those who merely happen to be walking about” (*Orthodoxy* [chapter four] 1995, 53).

⁴ See *Phaedo*, 61c-d and 64b-69e.

⁵ See *Republic* 473c-480a.

doubt knows, even the greatest of Greek philosophers, e.g., Socrates, Plato, and Aristotle, all think about philosophy in *very* different ways (for Socrates philosophy is a way of life which consists of a search for wisdom; for Plato philosophy is not only a search for wisdom but also involves the possession of wisdom, if only by way of the recollection of an other-worldly (or pre-worldly) set of experiences; Aristotle thinks *philosophy* is said in many ways (hence metaphysics is ‘first philosophy’), but *pace* Plato, successful philosophy, Aristotle thinks, needs to make sense of what we know by common sense).

St. Augustine has yet a different way of thinking about the nature of philosophy (philosophy is the search for wisdom, but such a search need not be limited to a mere human investigation, as with the Greeks; it may be that wisdom can be found in a rational reception of a divine revelation). By the time we get to the twentieth century there is also the great divide between analytic and continental approaches to philosophy. As Mizrahi points out, philosophers today disagree with one another about the nature of philosophy (2017a, 356).

So I could give an account of how *I* understand the philosophical enterprise, but that account itself would be controversial, and beside the point.⁶ Perhaps, if only for dialectical purposes, we can give the following as a *sufficient* condition for pieces of writing and discourse that count as philosophy (N.B. philosophy, not *good* philosophy):

(P) Those articles published in philosophical journals and what academics with a Ph.D. in philosophy teach in courses at public universities with titles such as Introduction to Philosophy, Metaphysics, Epistemology, Normative Ethics, and Philosophy of Science.

Whereas Mizrahi takes the reduction of philosophy to what professional philosophers publish in academic journals as a premise in Mizrahi’s Argument, I don’t take P to be a necessary condition for something’s counting as philosophy. For philosophical discourses are also recorded, for example, in old books, some of which are not typically taught in philosophy courses today, and (some very good) philosophy, productive of philosophical

⁶ Here follows a description of something like *one* traditional way of thinking about the intellectual discipline of philosophy, one that I often give in my introduction to philosophy classes. It describes philosophy by comparing and contrasting it with the experimental sciences, on the one hand, and revealed theology, on the other hand: philosophy is that intellectual discipline which investigates the nature of ultimate reality, knowledge, and value (i.e., subjects the investigation of which raise questions that can’t be settled *simply* by running controlled experiments and taking quantitative measurements) by way of methods such as deductive argumentation, conceptual analysis, and reflection upon one’s own experiences and the experiences of others (where the experiences of others include, but are not limited to, the experiences of experimental scientists doing experimental science and the experiences of those who practice other intellectual disciplines), by way of the natural light of human reason alone (where this last clause is concerned, philosophy is usefully compared and contrasted with *revealed* theology: revealed theology and philosophy investigate many of the same questions, e.g., are there any sorts of actions that ought to never be performed, no matter what?, but whereas philosophy draws upon the natural light of human reason alone to answer its characteristic questions [in this way philosophy is like the experimental sciences], and not on any supposed divine revelations, revealed theology makes use of the natural light of reason *and* [what revealed theologians believe by faith is] some divine revelation).

knowledge, also occurs in conversations between persons who can directly see and hear one another. Indeed, some persons who do not have a Ph.D. in philosophy do (good) philosophy too.

First Controversial Philosophical Premise in Mizrahi's Argument

Having remarked on Mizrahi's general criticisms of my objections to Mizrahi's Argument, I now turn to addressing Mizrahi's objections to the particular objections or points I make in my critique of Mizrahi's Argument in 2017. I address these objections not in the order Mizrahi raises them in 2017b, but as these objections track with the objections I raise in my 2017 article, and in the order I raise them (Mizrahi does not comment upon what I call 'the Second Assumption' at play in Mizrahi's Argument in his 2017b, and so I say nothing else about it here).

Recall that the general schema for Mizrahi's Argument is the following:

7. One kind of knowledge is better than another quantitatively or qualitatively [assumption].
8. Scientific knowledge is *quantitatively* better than non-scientific knowledge (including philosophical knowledge) in terms of the number of journal articles published and the number of journal articles cited.
9. Scientific knowledge is *qualitatively* better than non-scientific knowledge (including philosophical knowledge) insofar as scientific theories are more successful than non-scientific theories (including philosophical theories) where the *success* of a theory is understood in terms of its explanatory, instrumental, and predictive success.
10. Therefore, scientific knowledge is better than non-scientific forms of knowledge (including philosophical knowledge) both quantitatively and qualitatively [from 8 and 9].
11. Therefore, scientific knowledge is better than non-scientific forms of knowledge (including philosophical knowledge) [from 7 and 10].

A *first* controversial philosophical premise at play in Mizrahi's Argument is a premise Mizrahi uses to defend premise 8 of Mizrahi's Argument. The premise states that we should think about both knowledge and philosophy *operationally*. As I point out in 2017, Mizrahi needs to premise such accounts of knowledge and philosophy, since otherwise "it won't be possible for him to measure the quantity of knowledge in scientific and non-scientific disciplines, something Mizrahi needs to do in order to make his argument for 8" (2017, 44).

Mizrahi has three criticisms of my comment here. First, Mizrahi claims to have provided sufficient justification for operationalizing the nature of philosophy and (philosophical) knowledge by noting the controversy surrounding the nature of philosophy. In light of such controversy, citing Lauer, Mizrahi says: "Arguably, as far as answering the question 'What makes X philosophical?' goes, [operationalizing philosophy as what professional philosophers do] may be the best we can do (Lauer 1989, 16)" (Mizrahi 2017a, 356; Mizrahi 2017b, 12). So, contrary to what I say (or imply), Mizrahi does not simply *assume* we should

operationalize the nature of philosophy or knowledge. Second, Mizrahi thinks it problematic for me to challenge his premise reducing philosophy to what professional philosophers do without offering my own account of the nature of philosophy (2017b, 13). Third, Mizrahi thinks it strange that a philosopher (presumably, like me) who wants to defend the usefulness of philosophy should criticize his pragmatic account of the nature of philosophy.

As to Mizrahi's first point, he offers justification for operationalizing the nature of philosophy and knowledge only in the sense of "here's a reason why I am proceeding in the way that I am." Indeed, as I point out in 2017, unless he operationalizes the nature of philosophy and knowledge, "it won't be possible for him to measure the quantity of knowledge in scientific and non-scientific disciplines, something Mizrahi needs to do in order to make his argument for 8" (2017, 44).

Of course, Mizrahi is free to stipulate an understanding of philosophy or knowledge that can be measured empirically (it's a free country). But insofar as one bemoans the current state of the research university as one obsessed with outcomes, and measuring outcomes empirically, Mizrahi will forgive those who think stipulating an understanding of the nature of philosophy and knowledge as operational is not only shallow insofar as philosophy and knowledge can't fit into the narrow parameters of another empirical study, but furthermore, begs the question against those who think that, as great as experimental science and its methods are, experimental science does not constitute the only disciplined approach to searching for knowledge and understanding.

Mizrahi even goes so far to say (his way of) operationalizing the nature of knowledge and philosophy is the *least* controversial way of doing so (2017b, 13). It's hard to understand why he thinks that is the case. Just citing the fact that philosophers disagree with one another about the nature of philosophy, citing one author who thinks this is the best we can do, and then adding an additional account of what philosophy is to the already large list of different accounts of what philosophy is—for after all, to say *philosophy is what philosophers do*, is itself to do some philosophy, i.e., metaphilosophy—does not warrant thinking (a way of) operationalizing of philosophy and knowledge is the *least* controversial way of thinking about philosophy and knowledge.

In addition, many philosophers think it is *false* that philosophy and philosophical knowledge are reducible to what professional philosophers do (it may be good to recall that Socrates, Plato, Augustine, Descartes, Locke, and Hume were not professional philosophers). Also, some philosophers think that not all professional philosophers are true philosophers (again, for precedent, see the arguments in Plato's *Phaedo* and *Republic*). Still other philosophers will insist on a definition of *knowledge* such as, *knowledge is warranted true belief*, and also think much of what is argued in philosophy journals—and perhaps science journals too—does not meet the threshold of *being warranted*, and so of knowledge.

Perhaps Mizrahi means (his way of) operationalizing philosophy and knowledge are the least controversial ways of thinking about philosophy and knowledge among those engaged in "the scientism debate in philosophy" (2017b, 13). That may be so. In my original response—

and in this response too—I'm trying to suggest that there are people interested in evaluating scientism that do not share the scientific account of philosophy and knowledge of those engaged in “the scientism debate in philosophy.”

Having said something above why I did not describe the nature of philosophy in my 2017, I turn to Mizrahi's puzzlement at my raising the possibility that we should not operationalize the nature of philosophy and knowledge, given my interest in showing that philosophy is useful. After all, if it may be the case that a published journal article in philosophy does not constitute philosophy or an item of philosophical knowledge, what hope can there be to for responding to those academics who think philosophy is dead or useless?

Mizrahi apparently puts me in the class of folk who want to defend philosophy as useful. Mizrahi also seems to assume the only way to show philosophy is useful is by defining philosophy operationally (2017b, 13). Therefore, it doesn't make sense for me to be skeptical about operationalizing the nature of philosophy and knowledge.

Is philosophy useful? That depends upon what we mean by ‘useful.’ Philosophy won't help us cure cancer or develop the next form of modern technology (not directly, at any rate).⁷ So it is not useful as physics, chemistry, biology, or mathematics are useful. It is presumably in that technological sense of ‘useful’ that Martin Heidegger says, “It is entirely proper and perfectly as it should be: philosophy is of no use” (*Einführung in die Metaphysik*; qtd. in Pieper 1992, 41).

But by ‘useful,’ we may mean, “able to help a person live a better life.” In my view, philosophy can be very useful in that sense. A philosopher can help persons live a better life—sometimes even herself—by writing journal articles (that is, there certainly are some excellent philosophy journal articles, and some—often far too few—read and profit from these). But more often than not, since most people who may profit from exposure to philosophy or a philosopher don't read academic journals (and wouldn't profit much from doing so, if they did), people's lives are improved in the relevant sense by philosophy or philosophers insofar as they encounter a good philosopher in the classroom and in every day conversations or by reading classical philosophical works from the ancient, medieval, modern, and contemporary periods.

By operationalizing the nature of philosophy and knowledge, Mizrahi's Argument fails to account for those occasions, times, and places where *most* persons exposed to philosophy can—and sometimes do—profit from the experience by gaining knowledge they did not possess before about what makes for a flourishing human life.

⁷ Although, as I pointed out in my 2017 essay, it seems one can plausibly argue that modern science has the history of Western philosophy as a necessary or *de facto* cause of its existence, and so the instrumental successes of modern science also belong to Western philosophy indirectly.

A Third Controversial Philosophical Premise in Mizrahi's Argument

In my 2017 article, I mention a third controversial philosophical premise at play in Mizrahi's Argument: the view that the knowledge of each academic discipline—in terms of both its output and impact—can be *quantitatively measured*. Mizrahi objects that I do not “tell us what makes this alleged ‘assumption’ philosophical” (2017b, 13). He also states that I do not provide evidence that it is controversial. Finally, Mizrahi claims:

that we can measure the research output of academic fields is not “contentious” [Brown 2017, 45] at all. This so-called “assumption” is accepted by many researchers across disciplines, including philosophy [see, e.g., Kreuzman 2001 and Morrow & Sula 2011], and it has led to fruitful work in library and information science, bibliometrics, scientometrics, data science [Andres 2009], and philosophy [see, e.g., Wray & Bornmann 2015 and Ashton & Mizrahi 2017] (Mizrahi 2017b, 13).

As for my claim that the premise *one can quantify over knowledge produced in academic disciplines* is a philosophical premise, I assumed in my 2017 essay that Mizrahi and I were working from common ground here, since Mizrahi states, “it might be objected that the inductive generalizations outlined above [in defense of premise 8 of Mizrahi's Argument] are not scientific arguments that produce scientific knowledge because they ultimately rest on philosophical assumptions. *One philosophical assumption that they ultimately rest on, for example, is the assumption that academic knowledge produced by academic disciplines can be measured?*” (2017a, 356; emphasis mine).

I supposed Mizrahi to agree with the highlighted portion of the citation above, but it may be that Mizrahi was simply writing in the voice of an objector to his own view (of course, even then, we often agree with *some* of the premises in an objector's argument). I also (wrongly) took it to be *obvious* that the premise in question is a philosophical premise. What else would it be? A piece of common sense? A statement confirmed by experimental science?⁸ Something divinely revealed from heaven?

Mizrahi also claims I don't provide evidence that the claim that we can quantify over how much knowledge is produced in the academy is *controversial*. What sort of evidence is Mizrahi looking for? That some philosophical paper says so? Surely Mizrahi does not think we can settle a scholarly—let alone a philosophical—dispute by simply making an appeal to an authority. Does Mizrahi think we *need sociological* evidence to settle our dispute? Is that the *best* way to provide evidence for a claim? If the answer to either of these last two questions is ‘yes’, then Mizrahi's Argument for *Weak Scientism* is begging the question at issue.

⁸ For academics *don't agree on* which claims count as knowledge claims, e.g., some will say we can know propositions such as *murder is always wrong*, others don't think we can know ethical claims are true. Are we, then, to simply measure those claims published at the university that *all*—or the great majority of academics *believe* count as knowledge claims? But in that case, we are no longer measuring *what counts as knowledge*, but rather *what a certain group of people, at a certain time, believes counts as knowledge*. I don't think I'm going out on a limb when I say cataloguing what a certain group of people believe is sociology and not philosophy.

But, in any case, I do offer philosophical evidence that the philosophical claim that academic knowledge can be quantitatively measured is controversial in my 2017 article:

in order to measure the amount of scientific and non-scientific, academic knowledge—as Mizrahi needs to do in order to make his argument for premise 8 [of Mizrahi’s Argument]—he needs to define knowledge *teleologically*—as the goal or aim of an academic discipline—or *operationally*—as what academics *produce*. But thinking about the nature of (academic) knowledge in that *pragmatic* way is philosophically controversial. Therefore, thinking we can *measure quantitatively* the amount of knowledge across academic disciplines is itself philosophically controversial, since the latter assumption only makes sense on a pragmatic account of knowledge, which is itself a controversial philosophical assumption (2017, 45).

As I noted above, by ‘controversial’ here, I mean there is (at least) a large minority of philosophers, whether we simply count professional philosophers alive today, or also include dead philosophers, who (would) reject the claims that *we can collectively quantify over what counts as knowledge, knowledge is teleological, only academics produce philosophical knowledge, and philosophical knowledge is what philosophers publish in academic journals*.

Finally, note that Mizrahi’s evidence that (a) *reducing what academics know to what can be quantitatively measured is not controversial* is that (b) *there are academics from across the disciplines, including philosophy, who accept the premise that we can quantify over knowledge produced by academics* and (c) *the premise that we can quantify over knowledge produced by academic disciplines has led to fruitful work in a number of disciplines, including information science*.

But (a)’s itself being controversial (i.e., that a large minority reject it), even false, is consistent with the truth of both (b) and (c). By analogy, it is no doubt also true that (d) *academics from across the disciplines, even some philosophers, think quantitative assessment of college teaching is a good idea* and (e) *much data has been collected from quantitative assessments of college teaching which will be very useful for those seeking doctorates in education*. But surely Mizrahi knows that (d) is controversial among academics, even if (e) is true. Mizrahi’s argument that (a) is true on the basis of (b) and (c) is a *non-sequitur*.

A Fourth Controversial Philosophical Premise

In my 2017 article, I claim that a *fourth* controversial philosophical premise is doing important work for Mizrahi’s Argument. This premise states: *the quantity of knowledge of each academic discipline—in terms of both output and impact—can be accurately measured by looking at the **publications** of participants within that discipline*. I argue that reducing the production of academic knowledge to what academics publish shows a decided bias in favor of the philosophy of education dominating the contemporary research university, in contrast to the traditional liberal arts model that places a high value on reading and teaching classic texts in philosophy, mathematics, history (including the history of science), and literature. Showing such favor is significant for two reasons.

First, it is question-begging insofar as the philosophy of education in modern research universities, prizing as it does the sort of knowledge that the methods of the experimental sciences are specially designed to produce, i.e., *new* knowledge and *discoveries*, is itself rooted in a kind of cultural scientism, one that is supported by big business, university administrators, many journalists, most politicians, and, of course, the research scientists and academics complicit in this scientific way of thinking about the university.⁹ Second, since academics produce knowledge in ways other than publishing, e.g., by way of reading, teaching, mentoring, giving lectures, and engaging others in conversation, the premise that *the quantity of knowledge of each academic discipline can be accurately measured by output and impact of publications* does not “present us with a representative sample of knowledge produced within all academic disciplines” (Brown 2017, 46). That means that Mizrahi’s inference to the conclusion *scientists produce more knowledge than non-scientific academics* from the premise, *scientists produce more publications than non-scientific academics and scientists produce publications that are cited more often than those published by non-scientist academics* is logically invalid.

Mizrahi responds to my comments in this context by stating that I am confusing “passing on knowledge” or “sharing knowledge” with “producing knowledge” (2017b, 14). This distinction is significant, thinks Mizrahi, since “as far as the scientism debate is concerned, and the charge that philosophy is useless, the question is whether the methodologies of the sciences are superior to those of other fields in terms of producing knowledge, not in terms of sharing knowledge” (2017b, 14). Finally, Mizrahi also notes that those in the humanities do not corner the market on activities such as teaching, for scientists pass on knowledge by way of teaching too.

Mizrahi seems to assume that sharing knowledge is not a form of producing knowledge. But I would have thought that, if a person *S* does not know *p* at time *t* and *S* comes to know *p* at *t*+1, then that counts as an instance of the production of knowledge, even if some person other than *S* knows *p* at *t* or some time before *t* or *S* comes to know *p* by way of being taught by a person who already knows *p*. But say, if only for the sake of argument, that Mizrahi is correct to think sharing knowledge does not entail the producing of knowledge. The fact that either Mizrahi does not count passing on or sharing knowledge as a kind of producing of knowledge or Mizrahi’s Argument does not measure the sharing or passing on of knowledge would seem to mean that Mizrahi’s Argument simply measures the production of *new* knowledge or *discoveries*, where new knowledge or a discovery can be defined as follows:

(N) New knowledge or discovery =_{df} some human persons come to know *p* at time *t*, where no human person or persons knew *p* before *t*.

Mizrahi’s focus on knowledge as new knowledge or discovery in Mizrahi’s Argument reinforces a real limitation of (that argument for) *Weak Scientism* insofar as it equates knowledge with new knowledge. But it also confirms what I said in my 2017 article: Mizrahi’s Argument is question-begging since it has as a premise that knowledge is to be

⁹ See, e.g., Alasdair MacIntyre 2009, esp. 15-18 and 173-180.

understood as equivalent to *the sort of knowledge which the methods of the experimental sciences are specially designed to produce, i.e., new knowledge and discoveries.*

Surely philosophers sometimes make new discoveries, or collectively (believe they) make progress, but philosophy (in the view of some philosophers) is more about individual intellectual progress rather than collective intellectual progress (of course, we may think it is also has the power to bring about social progress, but some of us have our real doubts about that). As Josef Pieper says:

‘Progress’ in the philosophical realm is assuredly a problematic category—insofar as it means an ever growing collective accumulation of knowledge, growing in the same measure as time passes. There exists, under this aspect, an analogy to poetry. Has Goethe ‘progressed’ farther than Homer?—one cannot ask such a question. Philosophical progress undeniably occurs, yet not so much in the succession of generations as rather in the personal and dynamic existence of the philosopher himself (1992, 92).

To the charge that scientists teach students too, I, of course, concur. But if passing on knowledge by way of teaching, mentoring, giving lectures, and personal conversations count as ways of producing knowledge, then Mizrahi’s defense of premise 8 of Mizrahi’s Argument does not, as I say in my 2017 article, “present us with a representative sample of knowledge produced within all academic disciplines” (2017, 46). And if passing on knowledge by way of teaching or reading does not count as a way of producing knowledge, then, given what many of us take to be the real intellectual significance of passing on knowledge through teaching and reading, the position Mizrahi is actually defending in 2017a and 2017b is even weaker:

(Very, Very, Very, Very Weak Scientism): When it comes to the knowledge that is produced by academic journals, i.e., the *N* knowledge or discoveries published in academic journals, knowledge that comes from scientific academic journals is the best.

A Fifth Controversial Philosophical Premise

Although Mizrahi says nothing about it in his 2017b response to my 2017 essay, I think it is important to emphasize again that, in arguing that scientific knowledge is better than non-scientific knowledge in terms of *quantity* of knowledge, Mizrahi makes use of a *fifth* controversial philosophical premise in Mizrahi’s Argument: *the quantity of knowledge—in terms of output and impact—of each academic discipline can be successfully measured by looking simply at **the journal articles** published (output) and cited (impact) within that discipline.* For to count only journal articles when quantifying over *impact* of the knowledge of a discipline is, again, to adopt a scientific, discovery-oriented, approach to thinking about the nature of knowledge.

For how often do the works of Plato, Aristotle, Virgil, St. Augustine, St. Thomas Aquinas, Dante, Shakespeare, Descartes, Hume, Kant, Hegel, Marx, and Dostoevsky, just for starters, *continue* to have research impact on the work of historians, social scientists, theologians, and literature professors, not to mention, philosophers? So Mizrahi’s Argument either begs the

question against non-scientist academics for another reason—it neglects to count citations of great thinkers from the past—or, by focusing only on the citation of journal articles, we are given yet another reason to think the sample Mizrahi uses to make his inductive generalization in defense of premise 8 of Mizrahi’s Argument is simply not a representative one.

The Sixth and Ninth Controversial Philosophical Premises

Here I address the following controversial philosophical premises, both of which function as key background assumptions in Mizrahi’s Argument:

(K1) For any two pieces of knowledge, p and q , where p and q are produced by an academic discipline or disciplines, p is to be treated as *qualitatively* equal to q where measuring the *quantity* of knowledge produced within academic disciplines is concerned.

(K2) For any two pieces of knowledge, p and q , where p and q are produced by an academic discipline or disciplines, p is to be treated as *qualitatively* equal to q in the sense of the *nobility* or *importance* or *perfection* of p and q where measuring the *quality* of p and q , where quality in this latter sense measures the extent to which the theories employed in an academic discipline or discipline productive of p and q enjoy some degree of explanatory, instrumental, and predictive success.

Premise 8 of Mizrahi’s Argument says that *scientific knowledge is quantitatively better than non-scientific academic knowledge because scientists publish more journal articles than non-scientists and the journal articles published by scientists are cited more often—and so have a greater “research impact”—than do the journal articles published by non-scientists* (2017a, 355-58). In my 2017 essay I note that, in concluding to premise 8 on the basis of his inductive generalizations, Mizrahi is assuming (something such as) K1.

Furthermore, we may reasonably think K1 is false since the production of some sorts of non-scientific knowledge work may be *harder* than the production of scientific knowledge (and if a piece of work W is harder to publish than a piece of work $W1$, then, all other things being equal, W is qualitatively better than $W1$). For example, I mentioned the recent essay by philosopher David Papineau: “Is Philosophy Simply Harder than Science?” (2017). I also offered up as a reason for questioning whether K1 is correct Aristotle’s famous epistemological-axiological thesis that a little knowledge about the noblest things is more desirable than a lot of knowledge about less noble things.¹⁰

Premise 9 of Mizrahi’s Argument says that *scientific knowledge is qualitatively better than non-scientific academic knowledge insofar as scientific theories are more successful than non-scientific theories (including philosophical theories) where the success of a theory is understood in terms of its explanatory,*

¹⁰ See, e.g., *On the Parts of Animals*, Book I, chapter 5 [644b32-645a1]. See also St. Thomas Aquinas, *Summa contra gentiles*, book one, ch. 5, 5 and *Summa theologiae* Ia. q. 1, a. 5, ad1.

instrumental, and predictive success. In my 2017 response, I suggest that Mizrahi has (something such as) K2 implicitly premised as a background philosophical assumption in his argument for premise 9, and a premise such as K2 is a philosophically controversial one. At the very least, Mizrahi's implicitly premising K2 in Mizrahi's Argument therefore limits the audience for which Mizrahi's Argument will be at all rhetorically convincing. For as I stated in my 2017 response:

Assume . . . the following Aristotelian epistemological axiom: less certain knowledge (or less explanatorily successful knowledge or less instrumentally successful knowledge or less testable knowledge) about a nobler subject, e.g., God or human persons, is, all other things being equal, more valuable than more certain knowledge (or more explanatorily successful knowledge or more instrumentally successful knowledge or more testable knowledge) about a less noble subject, e.g., stars or starfish. . . . [And] consider, then, a piece of philosophical knowledge P and a piece of scientific knowledge S, where P constitutes knowledge of a nobler subject than S. If S enjoys greater explanatory power and more instrumental success and greater testability when compared to P, it won't follow that S is *qualitatively* better than P (2017, 50).

Mizrahi raises a number of objections to the sections of my 2017 essay where I mention implicit premises at work in Mizrahi's Argument such as K1 and K2. First, I don't explain why, following Papineau, philosophy may be harder than science (2017b, 9). Second, he offers some reasons to think Papineau is wrong: "producing scientific knowledge typically takes more time, effort, money, people, and resources . . . [therefore], scientific knowledge is harder to produce than non-scientific knowledge" (2017b, 9). Third, he notes I don't argue for Aristotle's epistemological-axiological thesis, let alone explain what it means for one item of knowledge to be nobler than another.

Fourth, in response to my notion that philosophy and science use different methodologies insofar as the methods of the former do not invite consensus whereas the methods of the latter do, Mizrahi notes that "many philosophers would probably disagree with that, for they see the lack of consensus, and thus progress in philosophy as a serious problem" (2017b, 10). Fifth, Mizrahi thinks there is precedent for his employing a premise such as K1 in his defense of premise 8 in Mizrahi's Argument insofar as analytic epistemologists often use variables in talking about the nature of knowledge, e.g., propositions such as 'if person S knows p , then p is true,' and therefore treat all instances of knowledge as qualitatively equal (2017b, 13, n. 2).

In mentioning Papineau's article in my 2017 essay, I offer an alternative interpretation of the data that Mizrahi employs in order to defend premise 8 of Mizrahi's Argument, an interpretation that he should—and does not—rule out in his 2017a paper, namely, that scientists produce more knowledge than non-scientists not because scientific knowledge is better than non-scientific knowledge but rather because non-scientific knowledge (such as philosophical knowledge) is harder to produce than scientific knowledge. Indeed, Mizrahi

himself feels the need to rule out this possibility in his 2017b reply to my 2017 article's raising this very point (see 2017b, 9).

Mizrahi's inference about the greater difficulty of scientific work compared to non-scientific academic work such as philosophy goes through only if we think about the production of philosophical knowledge in the operational manner in which Mizrahi does. According to that model of philosophical knowledge, philosophical knowledge is produced whenever someone publishes a journal article. But, traditionally, philosophical knowledge is not that easy to come by. Granted, scientific knowledge too is hard to produce. As Mizrahi well notes, it takes lots of "time, effort, money, people, and resources" to produce scientific knowledge.

But we live in a time that holds science in high regard (some think, too high a regard), not just because of the success of science to produce new knowledge, but because science constantly provides us with obvious material benefits and new forms of technology and entertainment.¹¹ So it stands to reason that more time, effort, money, and resources are poured into scientific endeavors and more young people are attracted to careers in science than in other academic disciplines. When one adds to all of this that scientists within their fields enjoy a great consensus regarding their methods and aims, which invites greater cooperation among researchers with those fields, it is not surprising that scientists produce more knowledge than those in non-scientific academic disciplines.

But all of that is compatible with philosophy being harder than science. For, as we've seen, there is very little collective consensus among philosophers about the nature of philosophy and its appropriate methods. Indeed, many academics—indeed, even some philosophers—think knowledge about philosophical topics is not possible at all. It's not beyond the pale to suggest that skepticism about the possibility of philosophical knowledge is partly a result of the modern trend towards a scientific account of knowledge. In addition, some philosophers think philosophical knowledge is harder to acquire than scientific knowledge, if only because of the nature of those topics and questions that are properly philosophical (see Papineau 2017 and Van Inwagen 2015, 14-15).

As for the meaning of Aristotle's epistemological-axiological claim, I take it that Aristotle thinks p is a nobler piece of knowledge than q if, all others being equal, the object of p is nobler than the object of q . For example, say we think (with Aristotle) that it is better to be a rational being than a non-rational being. It would follow that rational animals (such as human persons) are nobler than non-rational animals. Therefore, applying Aristotle's epistemological-axiological claim, all other things being equal, knowing something about human persons—particularly *qua* embodied rational being—is a nobler piece of knowledge than knowing something about any non-rational object.

¹¹ Of course, modern science and technology produce negative effects too, e.g., pollution, and, according to some, increased dissolution of traditional social bonds. But, because the positive effects of modern science and technology are often immediate and the negative effects often arise only after some time has passed, it is hard for us to take into account, let alone see, the negative consequences of modern science and technology. For some helpful discussion of the history of the culturally transformative effects of modern science and technology, both positive and negative, see Postman 1993.

Now, as Mizrahi points out, not all philosophers agree with Aristotle. But my original point in mentioning Aristotle's epistemological-axiological thesis was to highlight an *implicit* controversial philosophical premise in the background of Mizrahi's Argument. The Aristotelian epistemological-axiological thesis is perhaps rejected by many, but not all, contemporary philosophers. The implicit assumption that Aristotle is wrong that (knowledge of) some object is nobler than (knowledge of) another object is a philosophical assumption (just as any arguments that Aristotle is wrong will be philosophical arguments). Indeed, it may be that any reason a philosopher will give for rejecting Aristotle's epistemological-axiological thesis will also show that they are already committed to some form of scientific position.

I say the practice of philosophy doesn't invite consensus, whereas one of the advantages of an experimental method is that it does. That is a clear difference between philosophy and the experimental sciences, and since at least the time of Kant, given the advantage of a community of scholars being able to agree on most (of course, not all) first principles where some intellectual endeavor is concerned, some philosophers have suggested philosophy does not compare favorably with the experimental sciences.

So it is no surprise that, as Mizrahi notes, "many [contemporary] philosophers . . . see the lack of consensus, and thus progress in philosophy as a serious problem" (2017b, 10). But it doesn't follow from *that* sociological fact, as Mizrahi seems to suggest it does (2017, 10), that those same philosophers disagree that philosophical methods don't invite consensus. A philosopher could lament the fact that the methods of philosophy don't invite consensus (in contrast to the methods of the experimental sciences) but agree that that is the sober truth about the nature of philosophy (some professional philosophers don't like philosophy or have science envy; I've met a few). In addition, the fact that some philosophers disagree with the view that philosophical methods do not invite consensus shouldn't be surprising. Philosophical questions are by nature controversial.¹²

Finally, Mizrahi defends his premising (something such as) K1 by citing the precedent of epistemologists who often treat all items of knowledge as qualitatively the same, for example, when they make claims such as, 'if S knows *p*, then *p* is true.' But the two cases are not, in fact, parallel. For, unlike the epistemologist thinking about the *nature* of knowledge, Mizrahi is arguing about and comparing the *value* of various items of knowledge. For Mizrahi to assume KI in an argument that tries to show scientific knowledge is *better* than non-scientific knowledge is to beg a question against those who reasonably think philosophy is harder than science or the things that philosophers *qua* philosophers know are nobler than the things that scientists *qua* scientists know, whereas epistemologists arguably are not begging a

¹² See, e.g., Bourget & Chalmers 2014. As that study shows, when a good number of contemporary philosophers were polled about a number of major philosophical questions, every question asked turns out to be collectively controversial. Although the paper certainly identifies certain *tendencies* among contemporary philosophers, e.g., 72.8% identified as atheists, and only 14.6% identified as theists, that latter number is still a healthy minority view so that it seems right to say that whether atheism or theism is true is *collectively* controversial for contemporary philosophers. For some good discussion of philosophical questions as, by nature, controversial, see also Van Inwagen 2015, 11-19.

question when engaged in the practice of abstracting from various circumstances (by employing variables) in order to determine what all instances of knowledge have in common.

The Seventh and Eighth Controversial Philosophical Premises

In his attempt to defend the thesis that scientific knowledge is *qualitatively* better than non-scientific knowledge, Mizrahi assumes that a theory A is qualitatively better than a theory B if A is more successful than B (2017a, 358). He thus thinks about a theory's *qualitative* value in *pragmatic* terms. But not all philosophers think about the qualitative goodness of a theory in pragmatic terms, particularly in a philosophical context, if only because, of two theories A and B, A could be true and B false, where B is more successful than A, and a philosopher may prize truth over successful outcomes.¹³ This constitutes a seventh controversial philosophical premise in Mizrahi's Argument.

In addition, as I point out in my 2017 response, there is an eighth controversial philosophical premise in the background of Mizrahi's Argument, namely, that a theory A is more successful than a theory B if A is more *explanatorily* successful than B, *and* more *instrumentally* successful than B, *and* more *predictively* successful than B. Even if we grant, for the sake of argument, that this is a helpful account of a good *scientific* explanation, interestingly, Mizrahi thinks these criteria for a successful *scientific* theory can be rightfully applied as the measure of success for a theory, *simpliciter*.

I argued in my 2017 response that to think philosophical theories have to be, for example, *instrumentally* successful (in the way experimental scientific theories are, namely, (a) are such that they can be put to work to solve immediate material problems such as the best way to treat a disease or (b) are such that they directly lead to technological innovations) and *predicatively* successful in an argument for the conclusion that scientific knowledge is better than non-scientific knowledge is "to beg the question against non-scientific ways of knowing, ways of knowing that do not, by their very nature, employ controlled experiments and empirical tests as an aspect of their methodologies" (2017, 48).

In responding to my comments, Mizrahi makes three points. First, I criticize his account of explanation without offering my own account of explanation (2017b, 19). Second, passing over my comments that good philosophical theories need not be instrumentally successful (in the relevant sense) or predicatively successful, Mizrahi argues that I can't say, as I do, that good philosophical theories *explain* things but do not enjoy the good-making qualities of all good explanations. As Mizrahi states, "the good-making properties of [good] explanations include unification, coherence, simplicity, and testability. Contrary to what Brown (2017, 48) seems to think, these good-making properties apply to explanations in general, not just to scientific explanations in particular" (2017b, 19) and

¹³ A small point: in responding to my comment here, Mizrahi misrepresents what I say. He renders what I call in my 2017 article "the seventh assumption" as "One theory can be said to be qualitatively better than another" (2017b, 12). That's not what I say; rather I suggest Mizrahi's Argument premises *a theory A is qualitatively better than theory B if A is more **successful** than theory B*.

Contrary to what Brown asserts without argument, then, ‘To think that a theory T is successful only if—or to the extent that—it enjoys predicative success or testability’ is *not* to beg the question against non-scientific ways of knowing. For, insofar as non-scientific ways of knowing employ IBE [i.e., inference to the best explanation], which Brown admits is the case as far as philosophy is concerned, then their explanations must be testable (as well as unified, coherent, and simple) if they are to be good explanations (Mizrahi 2017b, 2); emphases in the original).

Mizrahi offers as evidence for the claim that all good explanations are testable and enjoy predicative power the ubiquity of such a claim in introductory textbooks on logic and critical thinking, and he offers as a representative example a chapter from a textbook by two philosophers, Sinnott-Armstrong & Fogelin 2010.

I plead guilty to not offering an account of good explanation in my 2017 article (for the same sort of reason I gave above for not defining *philosophy*). What I contend is that just as philosophical methods are different in kind from those of the experimental scientists, so too is a good philosophical explanation different in kind from what counts as a good explanation in an empirical science. That is *not* to say that philosophical and scientific explanations have nothing significant in common, just as it is not to say that the practice of philosophy has nothing in common with experimental scientific practice, despite their radical differences.

For both philosophy—at least on many accounts of its nature—and experimental science are *human* disciplines: their premises, conclusions, theories, and proposed explanations must submit to the bar of what human reason alone can establish.¹⁴ Indeed, many philosophers who do not share Mizrahi’s scientific cast of mind could happily agree that good philosophical explanations are *coherent* and, all other things being equal, that one philosophical explanation E is better than another E1 if E is *more unified* or *simpler* or has more explanatory *power* or *depth* or *modesty* than E1.

Others would add (controversially, of course) that, all other things being equal, philosophical theory E is better than E1 if E makes better sense of, or is more consistent with, *common-sense assumptions* about reality and human life,¹⁵ e.g., if theory E implies human persons are never morally responsible for their actions whereas E1 does not, then, all other things being equal, E1 is a better philosophical theory than theory E. In addition, we may think, taking another cue from Aristotle, that a philosophical theory E is better than a theory E1, all other things being equal, if E raises fewer philosophical puzzles than E1.

¹⁴ In this way, philosophy and the experimental sciences differ from one historically important way of understanding the discipline of *revealed theology*. For example, as St. Thomas Aquinas understands the discipline of revealed theology (see, e.g., *Summa theologiae* Ia. q. 1.), revealed theology is that *scientia* that treats especially of propositions it is reasonable to believe are divinely revealed, propositions that can’t be known by the natural light of human reason alone. In addition, the wise teacher of revealed theology can (a) show it is reasonable to believe by faith that these propositions are divinely revealed and (b) use the human disciplines, especially philosophy, to show how propositions that are reasonably believed by faith are not meaningless and do not contradict propositions we know to be true by way of the human disciplines, e.g., philosophy and the sciences.

¹⁵ See, e.g., Aristotle’s *Nicomachean Ethics*, book vii, ch. 1 (1145b2-7).

Mizrahi also premises that good philosophical explanations have to be *testable* (2017a, 360; 2017b, 19-20). But what does he mean? Consider the following possibilities:

(T1) A theory or explanation T is testable if and only if T can be evaluated by controlled experiments and other methods characteristic of the experimental sciences, e.g., inductive generalization.

(T2) A theory or explanation is testable if and only if T can be evaluated by (a) controlled experiments and other methods characteristic of the experimental sciences, e.g., inductive generalization or (b) on the basis of deductive arguments or (c) the method of disambiguating premises, or (d) the method of refutation by counter-example or (e) inference to the best explanation or (e) thought experiments (or (f) any number of other philosophical methods or (g) methods we use in everyday life).

In my 2017 response, I took Mizrahi to mean (something such as) T1 by ‘a good explanation is testable’. For example, Mizrahi states: “as a general rule of thumb, choose the explanation that yields *independently testable predictions*” (2017a, 360; emphases mine). If Mizrahi accepts T1 and thinks all good explanations must be testable, then, as I stated in my 2017 response, “philosophical theories will . . . not compare favorably with scientific ones” (2017, 49).

But as philosopher Ed Feser well points out, to compare the epistemic values of science and philosophy and fault philosophy for not being good at making testable predications is like comparing metal detectors and gardening tools and concluding gardening tools are not as good as metal detectors because gardening tools do not allow us to successfully detect for metal (2014, 23).

In other words, if T1 is what Mizrahi means by ‘testable’ and Mizrahi thinks all good explanations are testable, then Mizrahi’s Argument does, as I contend in my 2017 response, “beg the question against non-scientific ways of knowing, ways of knowing that do not, by their very nature, employ controlled experiments and empirical tests as an aspect of their methodologies” (2017, 48; see also Robinson 2015).

But perhaps Mizrahi means by ‘an explanation’s being testable’ something such as T2. But in that case, good philosophical work, whether classical or contemporary, will compare favorably with the good work done by experimental scientists (of course, whether one thinks this last statement is true will depend upon one’s philosophical perspective).

Some Concluding General Remarks About Mizrahi’s Argument

Given the number of (implied) controversial philosophical premises that function as background assumptions in Mizrahi’s Argument, that argument should not convince those who do not already hold to (a view close to) *Weak Scientism*. As we’ve seen, Mizrahi premises, for example, that *philosophy should be operationally defined as what philosophers do, that knowledge*

within all academic disciplines should be operationally defined as what academics publish in academic journals, K1, K2, and all good explanations are explanatorily, instrumentally, and predicatively successful.

Of course, the number of controversial philosophical premises at play in Mizrahi's Argument isn't in and of itself a *philosophical problem* for Mizrahi's Argument, since the same could be said for just about any philosophical argument. But one gets the distinct impression that Mizrahi thinks Mizrahi's Argument should have very wide appeal among philosophers. If Mizrahi wants to convince those of us who don't already share his views, he needs to do some more work defending the implied premises of Mizrahi's Argument, or else come up with a different argument for *Weak Scientism*.

Indeed, many of the implied controversial philosophical premises I've identified in Mizrahi's Argument are, as we've seen, not only doing some heavy philosophical lifting in that argument, but such premises imply that (something such as) *Weak Scientism* is true, e.g., *the quantity of knowledge of each academic discipline—in terms of both output and impact—can be accurately measured by looking at the **publications** of participants within that discipline, K1, K2, a theory A is more successful than a theory B if A is more explanatorily successful than B, and more instrumentally successful than B, and more predictively successful than B, and an explanation is a good explanation only if it is testable in the sense of T1.* Mizrahi's Argument thus begs too many questions to count as a good argument for *Weak Scientism*.

Mizrahi is also at pains to maintain that his argument for *Weak Scientism* is a *scientific* and not a philosophical argument, and this because a significant part of his argument for *Weak Scientism* not only draws on scientific evidence, but employs “the *structure* of inductive generalization from samples, which are inferences commonly made by practicing scientists” (2017a, 356). I admit that a scientific argument from information science is “a central feature of Mizrahi's Argument” (Brown 2017, 50) insofar as he uses scientific evidence from information science to support premise 8 of Mizrahi's Argument. But, as I also note in my 2017 essay, “Mizrahi can't reasonably maintain his argument is thereby a scientific one, given the *number of controversial* philosophical assumptions employed as background assumptions in his argument” (2017, 51).

My objection that Mizrahi's Argument is a piece of philosophy and not a scientific argument is one that Mizrahi highlights in his response (2017b, 9). He raises two objections to my claim that Mizrahi's Argument is a philosophical and not a scientific argument. First, he thinks I have no grounds for claiming Mizrahi's Argument is a philosophical argument since I don't give an account of philosophy, and I reject his operationalized account of philosophy (2017b, 15). Second, Mizrahi states that

Brown seems to think that an argument is scientific only if an audience of peers finds the premises of that argument uncontroversial. . . . Accordingly, Brown's (2017) criterion of controversy [according to Mizrahi, I think this is *dubitability*] and his necessary condition for an argument being scientific have the absurd consequence that arguments presented by scientists at scientific conferences (or

published in scientific journals and books) are not scientific arguments unless they are met with unquestioned acceptance by peer audiences (2017b, 16).

I have already addressed Mizrahi's comment about the nature of philosophy above. In response to his second objection, Mizrahi wrongly equates my expression, "controversial background philosophical assumptions," with his expression, "controversial premises in a scientific argument." Recognizing this false equivalency is important for evaluating my original objection, and this for a number of reasons.

First, what Mizrahi calls the "premises of a scientist's argument" (2017b, 15) are, typically, I take it, *not philosophical* premises or assumptions. For is Mizrahi claiming that scientists, at the presentation of a scientific paper, are asking questions about propositions such as K1 or K2?

Second, Mizrahi and I both admit that philosophical background assumptions are sometimes in play in a scientific argument. Some of these claims, e.g., *that there exists an external world*, some philosophers will reject. What I claimed in my 2017 essay is that a scientific argument—in contrast to a philosophical argument—employs *background philosophical assumptions* that "are largely *non-controversial* for the community to which those arguments are addressed, namely, the community of practicing scientists" (2017, 15). For example, an argument that presupposed the truth of theism (or atheism), would not be, properly speaking, a scientific argument, but, at best, a philosophical argument that draws on some scientific evidence to defend certain of its premises.

So, contrary to what Mizrahi says, my argument that Mizrahi's Argument is not a scientific argument neither implies that Darwin's *Origin of the Species* is not science, nor does it imply a scientist's paper is not science if audience members challenge that paper's premises, methods, findings, or conclusion. Rather, my comment stands unscathed: because of the number of *philosophical background premises* that are controversial among the members of the audience to which Mizrahi's Argument is directed—presumably all academics—Mizrahi's Argument is not a scientific argument but rather, a philosophical argument that draws on some data from information science to defend one of its crucial premises, namely premise 8.

But, as I pointed out above, even Mizrahi's argument for premise 8 in Mizrahi's Argument is a philosophical argument, drawing as that argument does on the controversial philosophical background premises such as *philosophy should be operationally defined as what philosophers do, knowledge within all academic disciplines should be operationally defined as what academics publish in academic journals*, and K1.

Finally, there is another reason why Mizrahi himself, given his own philosophical principles, should think Mizrahi's Argument is a piece of philosophy. As we've seen, Mizrahi thinks that philosophy and philosophical knowledge should be defined operationally, i.e., philosophy is what philosophers do, e.g., publish articles in philosophy journals, and philosophical knowledge is what philosophers produce, i.e., publications in philosophy journals (see Mizrahi 2017a, 353). But Mizrahi's 2017a paper is published in a philosophy journal. Therefore, by Mizrahi's own way of understanding philosophy and science, Mizrahi's

Argument is not a scientific argument, but a philosophical argument (contrary to what Mizrahi says in both 2017a and 2017b).

Revisiting an Objection to Mizrahi's Attempt to Defeat Objection O2

Recall that Mizrahi thinks Mizrahi's Argument is a scientific argument. Furthermore, in 2017a he thinks he needs to defend Weak Scientism against objection O2. He does so by arguing that: (a) if O2 is true, then all knowledge by inference would be viciously circular; but the consequent of (a) is false, and, therefore, the antecedent of (a) is false.

In my 2017 response to Mizrahi 2017a, I argued that Mizrahi's attempt to defeat objection O2 fails since he assumes, citing Ladyman, that "'deductive inference is only defensible by appeal to deductive inference' (Ladyman 2002, 49)" (Mizrahi 2017a, 362) whereas it is reasonable to think that the rules of deductive inference are defensible by noting we believe them by the same sort of power we believe propositions such as '1+1=2' and 'a whole is greater than one its parts', namely, some non-inferential mode of knowing (see, e.g., Feldman 2003, 3-4). So there is no inconsistency in affirming both *a scientific argument for Weak Scientism is a circular argument* and *knowledge of the rules of deductive inference is defensible*.

Now, in responding to my comment in 2017, Mizrahi misconstrues my comment by rendering it as the following question: "why think that deductive rules of inference cannot be *proved* valid in a non-circular way?" (2017b, 9; emphasis mine). But as should be clear from the above, this is not my objection, since I never talk about "proving in a valid way" deductive rules of inference. Mizrahi seems to think that the only way to show deductive inference is defensible is by way of a circular *proof* of them. But why think a thing like that? Rather, as Aristotle famously points out, good deductive arguments have to start from premises that we know with certainty by way of some non-deductive means (*Posterior Analytics*, Book II, ch. 19, see esp. 100a14-100b18). Again, Mizrahi has not shown there is an inconsistency in affirming both *a scientific argument for Weak Scientism is a circular argument* and *knowledge of the rules of deductive inference is defensible*.

Against Mizrahi's Claim that Philosophers Should Not Use Persuasive Definitions of *Scientism*.

In 2017a, Mizrahi claims that persuasive definitions of scientism, e.g., "scientism is a matter of putting too high a value on science in comparison with other branches of learning or culture" (Sorrell 1994, x) or "scientism is an exaggerated deference towards science, an excessive readiness to accept as authoritative any claim made by the sciences, and to dismiss every kind of criticism of science or its practitioners as anti-scientific prejudice" (Haack 2007, 17-18), are problematic because they beg the question against the scientific stance (Mizrahi 2017a, 351; 352), or otherwise err by not "*show[ing]* precisely what is wrong with scientism" (2017a, 352).

In my 2017 response to Mizrahi's claim that philosophers should not use persuasive definitions of scientism, I do two things. First, I offer a counter-example to Mizrahi's view

by showing that one can give a logically valid argument for the “persuasive” description, ‘abortion is murder’, an argument that does not beg questions against those who deny the conclusion and also explains why some folks accept the conclusion. Second, I attempted to offer a non-question begging argument for a persuasive description of *scientism*, one which offers an explanation—by way of its premises—why someone may accept that definition as true.

Mizrahi offers some objections to my 2017 response on this score. First, Mizrahi objects that my sample argument for the conclusion, *abortion is murder*, is invalid. He next posits that one of the premises of my sample argument for the conclusion, *abortion is murder*, is such that “the emotionally charged term ‘innocent’ is smuggled into [it]” (2017b, 18). Finally, he gives a reason why one may think the premise, *the human fetus is an innocent person*, is false.

Mizrahi thinks my argument for a persuasive definition of scientism “suffers from the same problems as [my] abortion argument” (2017b, 18). More specifically, he thinks the argument is “misleading” since it treats *Strong Scientism* and *Weak Scientism* in one argument and Mizrahi does not advocate for *Strong Scientism*, but for *Weak Scientism*. In addition, he notes I assume “without argument that there is some item of knowledge . . . that is both non-scientific and better than scientific knowledge. Given that the scientism debate is precisely about whether scientific knowledge is superior to non-scientific knowledge, one cannot simply assume that non-scientific knowledge is better than scientific knowledge without begging the question” (2017b, 19).

In responding to these objections, I begin with Mizrahi’s analysis of my sample argument for the conclusion, *abortion is murder*. The first thing to say is that Mizrahi criticizes an argument different from the one I give in my 2017 response. The sample argument I offer in 2017 is as follows:

14. Abortion is the direct killing of a human fetus.
15. The human fetus is an innocent person.
16. Therefore, abortion is the direct killing of an innocent person [from 14 and 15].
17. The direct killing of an innocent person is murder.
18. Therefore, abortion is murder [from 16 and 17].

For some reason, Mizrahi renders premise 14 as

- 14a. Abortion is the direct killing of a human being (2017b, 17).

Mizrahi then accuses me of offering an invalid argument. Now, I agree that an argument the conclusion of which is proposition 16 and the premises of which are 14a and 15 is a logically invalid argument. But *my* argument has 16 as its conclusion and 14 and 15 as its premises, and *that* argument is logically valid.

As for Mizrahi’s next objection to my sample argument for the conclusion, *abortion is murder*, just because a person S finds a premise “emotionally charged” does not mean a person S1

can't properly use that premise in an argument; that is to say, just because some person S doesn't like to consider whether a premise is true, or doesn't like to think about the implications of a premise's being true, it does not follow that the use of such a premise is somehow dialectically improper.

If it were the case that emotionally laden or emotionally charged premises are off-limits, then just about all arguments in applied ethics (about topics such as the morality of the death penalty, eating meat, factory farming, gun-control, etc.) would be problematic since such arguments regularly employ premises that advocates and opponents alike will find emotionally laden or emotionally charged. The claim that a premise is dialectically improper because it is emotionally laden or emotionally charged is a non-starter.

Perhaps Mizrahi would counter by saying premise 15 is itself a persuasive definition or description, and so to use it as a premise in an argument that is supposed to be a counter-example to the view that the use of persuasive definitions is question-begging is itself question-begging. In that case, one may add the following premises to my sample argument for a non-question-begging argument that explains why someone may think abortion is murder:

15a. If a human person has not committed any crimes and is not intentionally attacking a human person, then that human person is an innocent person [assumption].

15b. A human being is a human person [assumption].

15c. A human fetus is a human being [assumption].

15d. Therefore, a human fetus is a human person [from 15b and 15c]

15e. Therefore, if a human fetus has not committed any crimes and is not intentionally attacking a human person, then a human fetus is an innocent person [from 15a and 15d].

15f. A human fetus has not committed any crimes and is not intentionally attacking a human person [assumption].

15g. Therefore, a human fetus is an innocent person [from 15e and 15f, MP].

Now, it may be that Mizrahi will offer reasons for rejecting some of the premises in the argument above, just as he offers a reason in 2017a for thinking 15 is false in the argument consisting of propositions 14-18. *But all that would be beside the point.* For the goal was not to produce a sample argument whose conclusion was a persuasive definition or description that any philosopher would think is *sound*—good luck with that project!—but rather to produce a logically valid argument for a persuasive definition of a term that both (a) does not beg any

questions against those who reject the conclusion and (b) provides reasons for thinking the conclusion is true. But both the argument consisting of propositions 14-18 and the argument consisting of propositions 15a-15g do just that. Therefore, these arguments constitute good counter-examples to Mizrahi's claim that persuasive definitions are always dialectally pernicious.

Turning to my argument in defense of a persuasive definition of *scientism*, I grant that my attempt in 2017 to offer one argument in defense of a persuasive definition of scientism that makes reference both to *Strong Scientism* and *Weak Scientism* is misleading. I therefore offer here an argument for a persuasive definition of *Weak Scientism*.

Also, rather than using variables in my sample argument, which I thought sufficient in my 2017 response (for the simple reason I thought a sample *schema* for a non-question begging argument in defense of a persuasive definition of *scientism* is what was called for), I also offer a possible example of a piece of philosophical knowledge that is better than scientific knowledge in my argument here. In my view, the following logically valid argument both offers an explanation for accepting its conclusion and does not beg any questions against those who reject its conclusion:

28. *Weak Scientism* is the view that, of the various kinds of knowledge, scientific knowledge is the best [assumption].
29. If scientific knowledge is the best kind of knowledge, then scientific knowledge is better than all forms of non-scientific knowledge [self-evident].
30. *Weak Scientism* implies scientific knowledge is better than all forms of non-scientific knowledge [from 28 and 29].
31. If position P1 implies that x is better than all forms of non- x , then P1 implies x is more valuable than all forms of non- x [assumption].¹⁶
32. Therefore, *Weak Scientism* implies scientific knowledge is more valuable than all forms of non-scientific knowledge [from 30 and 31].
33. If position P1 implies that x is more valuable than all forms of non- x , but x is *not* more valuable than all forms of non- x , then P1 is a view that has its advocates putting too high a value on x [assumption].
34. Therefore, if *Weak Scientism* implies that scientific knowledge is more valuable than all forms of non-scientific knowledge *and* scientific knowledge is not more valuable than all forms of non-scientific knowledge, then *Weak Scientism* is a view that has its advocates putting too high a value on scientific knowledge [from 33].
35. Some philosophers *qua* philosophers know that (a) true friendship is a necessary condition for human flourishing and (b) the possession of the moral virtues or a life project aimed at developing the moral virtues is a necessary condition for true friendship and (c) (therefore) the possession of the moral virtues or a life

¹⁶ The proposition *S's preferring x to y* is logically distinct from the proposition, *x 's being more valuable than y* . For S may prefer x to y even though y is, in fact, more valuable than x .

project aimed at developing the moral virtues is a necessary condition for human flourishing (see, e.g., the argument in Plato's *Gorgias*¹⁷) and knowledge concerning the necessary conditions of human flourishing is better than any sort of scientific knowledge (see, e.g., St. Augustine's *Confessions*, book five, chapters iii and iv), then there is a non-scientific form of knowledge better than scientific knowledge [self-evident].

36. Some philosophers *qua* philosophers know that (a) true friendship is a necessary condition for human flourishing and (b) the possession of the moral virtues or a life project aimed at developing the moral virtues is a necessary condition for true friendship and (c) (therefore) the possession of the moral virtues or a life project aimed at developing the moral virtues is a necessary condition for human flourishing (see, e.g., the argument in Plato's *Gorgias*) and knowledge concerning the necessary conditions of human flourishing is better than any sort of scientific knowledge (see, e.g., St. Augustine's *Confessions*, book five, chapters iii and iv) [assumption].
37. Therefore, there is a form of non-scientific knowledge better than scientific knowledge [from 35 and 36, MP].
38. If knowing some form of non- x is better than knowing x , then knowing some form of non- x is more valuable than knowing x [assumption].
39. Therefore, there is a form of non-scientific knowledge that is more valuable than scientific knowledge [from 37 and 38].
40. Therefore, scientific knowledge is not more valuable than all forms of non-scientific knowledge [from 39].
41. Therefore, *Weak Scientism* is a view that has its advocates putting too high a value on scientific knowledge [from 34, 32, and 40, MP].

In my view, the argument above both offers an explanation for accepting its conclusion and does not beg any questions against those who reject the conclusion. Someone may think one of the premises is false, e.g., 36. But that is beside the point at issue here. For Mizrahi claims the use of persuasive definitions always involve begging the question or a failure to support the persuasive definition with reasons.

But the argument above does not beg the question; someone may think *Weak Scientism* is true, become acquainted with the claim in premise 36, and then, realizing the error of his ways by way of the argument above, reject *Weak Scientism*. The argument above also provides a set of reasons for the conclusion, which is a persuasive description of *Weak Scientism*. It therefore constitutes a good counter-example to Mizrahi's claim that the use of a persuasive definition of *scientism* is always problematic.

Contact details: chrisb@utm.edu

¹⁷ See *Gorgias* 507a-508a.

References

- Aquinas, Saint Thomas. *Summa Theologiae*. Translated by the Fathers of the English Dominican Province. Allen, TX: Christian Classics, 1981.
- Aquinas, Saint Thomas. *Summa Contra Gentiles*. Book One. Trans. Anton C. Pegis. South Bend, IN: University of Notre Dame Press, 1991.
- Aristotle. *Posterior Analytics*. Trans. G.R.G. Mure. In *The Basic Works of Aristotle*. Ed. Richard McKeon. New York: Random House, 1941.
- Aristotle. *On the Parts of Animals*. Trans. William Ogle. In *The Basic Works of Aristotle*. Ed. Richard McKeon. New York: Random House, 1941.
- Aristotle. *Nicomachean Ethics*. Trans. W.D. Ross. In *The Basic Works of Aristotle*. Ed. Richard McKeon. New York: Random House, 1941.
- Augustine, Saint. *Confessions*. Trans. Frank Sheed. 1942; reprint, Indianapolis: Hackett Publishing, 2006.
- Brown, Christopher. "Some Logical Problems for Scientism." *Proceedings of the American Catholic Philosophical Association* 85 (2011): 189-200.
- Brown, Christopher. "Some Objections to Moti Mizrahi's 'What's So Bad about Scientism?'" *Social Epistemology Review and Reply Collective* 6, no. 8 (2017): 42-54.
- Bourget, David and David J. Chalmers. "What do philosophers believe?" *Philosophical Studies* 170, 3 (2014): 465-500.
- Chesterton, G.K. *Orthodoxy*. 1908; reprint, San Francisco: Ignatius Press, 1995.
- Feldman, Richard. *Epistemology*. Upper Saddle River, NJ: Prentice-Hall, 2003.
- Feser, Edward. *The Last Superstition: A Refutation of the New Atheism*. South Bend: St. Augustine's Press, 2008.
- Feser, Edward. "Blinded by Scientism." *Public Discourse*. March 9, 2010a. Accessed January 15, 2018. <http://www.thepublicdiscourse.com/2010/03/1174/>.
- Feser, Edward. "Recovering Sight after Scientism." *Public Discourse*. March 12, 2010b. Accessed January 15, 2018. <http://www.thepublicdiscourse.com/2010/03/1184/>.
- Feser, Edward. *Scholastic Metaphysics: A Contemporary Introduction*. editiones scholasticae, 2014.

Haack, Susan. *Defending Science—Within Reason: Between Scientism and Cynicism*. Amherst, NY: Prometheus Books, 2007.

Haack, Susan. “The Real Question: Can *Philosophy* Be Saved? *Free Inquiry* (October/November 2017): 40-43.

MacIntyre, Alasdair. *God, Philosophy, and Universities*. Lanham: Rowman & Littlefield, 2009.

Mizrahi, Moti. “What’s So Bad About Scientism?” *Social Epistemology* 31, no. 4 (2017a): 351-367.

Mizrahi, Moti. “In Defense of *Weak Scientism*: A Reply to Brown.” *Social Epistemology Review and Reply Collective* 6, no. 11 (2017b): 9-22.

Oxford English Dictionary Online, s.v. “scientism,” accessed January 10, 2018, <http://www.oed.com/view/Entry/172696?redirectedFrom=scientism>.

Papineau, David. “Is Philosophy Simply Harder than Science?” *The Times Literary Supplement On-line*. June 1, 2017. Accessed July 11, 2017. <https://goo.gl/JiSci7>.

Pieper, Josef. *In Defense of Philosophy*. Trans. Lothar Krauth. 1966; reprint, San Francisco: Ignatius Press, 1992.

Plato. *Phaedo*. In *Five Dialogues*. Trans. Grube and Cooper. Indianapolis: Hackett Publishing, 2002.

Plato. *Gorgias*. Trans. Donald J. Zeyl. Indianapolis: Hackett Publishing, 1987.

Plato. *Republic*. Trans. C.D.C. Reeve. Indianapolis: Hackett Publishing, 2004.

Postman, Neil. *Technopoly: the Surrender of Culture to Technology*. New York: Vintage Books, 1993.

Robinson, Daniel N. “Science, Scientism, and Explanation.” In *Scientism: the New Orthodoxy*. Williams and Robinson, eds. London: Bloomsbury Academic, 2015, 23-40.

Rosenberg, Alex. *The Atheist’s Guide to Reality*. New York: W. W. Norton and Co., 2011.

Sorrell, Tom. *Scientism: Philosophy and the Infatuation with Science*. First edition. London: Routledge, 1994.

Sorell, Tom. *Scientism: Philosophy and the Infatuation with Science*. Kindle edition. London: Routledge, 2013.

Van Inwagen, Peter. *Metaphysics*. 4th edition. Boulder, CO: Westview Press, 2015.

Williams, Richard. N. and Daniel N. Robinson, eds. *Scientism: the New Orthodoxy*. London: Bloomsbury Academic, 2015.