

In Defense of *Weak Scientism*: A Reply to Brown

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Introduction

In “What’s So Bad about Scientism?” (Mizrahi 2017), I argue that *Weak Scientism*, the view that “Of all the knowledge we have, scientific knowledge is the *best* knowledge” (Mizrahi 2017, 354; emphasis in original) is a defensible position. That is to say, *Weak Scientism* “can be successfully defended against objections” (Mizrahi 2017, 354). In his response to Mizrahi (2017), Christopher Brown (2017) provides more objections against *Weak Scientism*, and thus another opportunity for me to show that *Weak Scientism* is a defensible position, which is what I will do in this reply. In fact, I think that I have already addressed Brown’s (2017) objections in Mizrahi (2017), so I will simply highlight these arguments here.

In particular, Brown’s (2017) objections consist of raising the following questions as challenges to my defense of *Weak Scientism*:

1. Is *Weak Scientism* strong enough to count as scientism?
2. Does *Weak Scientism* entail that philosophy is useless?
3. Does my defense of *Weak Scientism* rest on controversial philosophical assumptions?
4. Is my argument in defense of *Weak Scientism* a philosophical or a scientific argument?
5. Why think that deductive rules of inference cannot be proved valid in a non-circular way?
6. What’s wrong with persuasive definitions of scientism?

In what follows, I will address these challenges in order. I will argue that Brown’s (2017) attempt to cast doubt on my defense of *Weak Scientism* fails to undermine it; *Weak Scientism* remains a defensible position and the one that advocates of scientism *should* hold.

Before I get into the details of Brown’s (2017) objections, I would like to make a general point about his argumentative strategy. Brown’s objections to my defense of *Weak Scientism* consist of casting doubt on my defense by entertaining alternative possibilities or “what ifs.” For example, in an attempt to undermine the bibliometric data on research output and research impact, which show that “scientific knowledge is better – in terms of research output (i.e. more publications) and research impact (i.e. more citations) – than non-scientific knowledge” (Mizrahi 2017, 358), Brown (2017, 47) invites us to consider the possibility that (following Papineau 2017) “it is simply harder to arrive at philosophical knowledge than scientific knowledge” or that (following Aristotle) “a little knowledge about the noblest things is more desirable than a lot of knowledge about less noble things” (Brown 2017, 48). But why think that it is harder to produce philosophical knowledge than scientific knowledge? Brown does not tell us. If anything, producing scientific knowledge typically takes more time, effort, money, people, and resources (think of large-scale scientific projects, such as the Human Genome Project and the Large Hadron Collider). This means that scientific knowledge is harder to produce than non-scientific

knowledge. And why think that the “Aristotelian epistemological axiom: less certain knowledge [...] about a nobler subject [...] is, all other things being equal, more valuable than more certain knowledge [...] about a less noble subject” (Brown 2017, 50) is true? Brown does not tell us. Nor does he tell us what it even means for one item of knowledge to be more or less “noble” than another. Isn’t knowledge of the origin of life and the universe “noble” enough? Perhaps Aristotle is wrong and Kant is right that knowledge about “the starry heavens above” is just as noble as knowledge about “the moral law within” (Kant 1788/2015, 129).

My general point, then, is that Brown’s (2017) argumentative strategy of casting doubt on my defense of *Weak Scientism* by entertaining alternative possibilities is not sufficient to undermine my defense. In order to pose a serious challenge to my defense of *Weak Scientism*, Brown must come up with more than mere “what ifs,” especially since the question of whether scientific knowledge is superior to non-scientific knowledge is a question that can be answered empirically. That is, we can compare the track record of scientific disciplines to that of non-scientific disciplines in order to find out which has been more successful in terms of producing knowledge (Mizrahi 2017, 355-356). As far as the track record of philosophy is concerned, for instance, it is “a track record that is marked by an abundance of alternative theories and serious problems for those theories” (Mizrahi 2016, 205). Brown (2017, 49) will insist that “philosophical methodologies [...] differ in kind from the consensus-inviting methodologies of empirical science,” but many philosophers would probably disagree with that, for they see the lack of consensus, and thus progress, in philosophy as a serious problem (see, e.g., Chalmers 2015).¹

1. Is *Weak Scientism* strong enough to count as scientism?

For Brown (2017, 42), the answer to the first question is “no” because “one could accept *Weak Scientism* and not only agree that philosophical knowledge exists (as Mizrahi notes), but also think philosophical knowledge is extremely valuable, indeed, nearly as valuable as scientific knowledge itself.” Even if Brown (2017) is right about this, it is not clear how it is supposed to follow from this that *Weak Scientism* is not “really” scientism, or that it is not strong enough to count as scientism. After all, one of the problems with the scientism debate is precisely the meaning of the term ‘scientism’ (Mizrahi 2017, 351-353). Without a clear understanding of what scientism is, and Brown (2017) does not provide one, it is not clear on what grounds Brown can say what is “really” scientism and what is not “really” scientism.

Brown (2017, 42) also argues that *Weak Scientism* is not “really” scientism because “traditional advocates of scientism, such as Alex Rosenberg (see, e.g., 2011),” and “those who think philosophy is useless, such as Stephen Hawking and Leonard Mlodinow (see, e.g., 2010),” would find *Weak Scientism* not “quite strong enough to communicate their own (negative) attitudes toward philosophy or philosophical knowledge or non-scientific forms of knowledge more generally.” As I point out in Mizrahi (2017, 353), however,

the focus of this paper [Mizrahi (2017)] is not what self-professed adherents of scientism actually say or have said. Rather, the focus of this paper [Mizrahi (2017)] is what an

¹ There is a “Disagreement in Philosophy” subcategory on PhilPapers (under Metaphilosophy) that contains 92 papers (as of August 26, 2017).

adherent of scientism *should* say. In other words, the aim of this paper is to articulate a defensible definition of scientism to replace the straw man that is (SP) [i.e., “Scientism is a matter of putting too high a value on science in comparison with other branches of learning or culture” (Sorell 2013, x)].

And even if Brown (2017, 42) is right about “traditional advocates of scientism” finding *Weak Scientism* not strong enough for their taste, it is not clear how this is supposed to imply that *Weak Scientism* is not “really” scientism, or that it is not strong enough to count as scientism. After all, if the (negative) attitudes toward non-scientific knowledge of Rosenberg, Hawking, and others are indefensible or unwarranted, then they *should* revise their attitudes. Their attitudes do not determine what scientism is, for scientism is an epistemological thesis, not a psychological one (Peels 2017).

For these reasons, Brown (2017) fails to provide good reasons for thinking that the answer to the first question is “no.” Indeed, Peels (2017, 10) finds my *Weak Scientism* “fairly strong,” for it is the view that scientific knowledge is *simply the best; better than all the rest* (to borrow from Tina Turner). Whether “traditional advocates of scientism” (Brown 2017, 42) *would* accept *Weak Scientism* is beside the point. As far as my defense of *Weak Scientism* is concerned (Mizrahi 2017), what matters is what they *should* accept (given the evidence in support of *Weak Scientism*).

2. Does *Weak Scientism* entail that philosophy is useless?

Brown (2017) points out that *Weak Scientism* does not entail that philosophy is useless. He is right about that, of course, but I do not set out to defend the charge that philosophy is useless in Mizrahi (2017). Rather, in Mizrahi (2017), I set out to defend *Weak Scientism*. In fact, I explicitly say that (Mizrahi 2017, 356):

It is also important to keep in mind that *Weak Scientism* does not amount to a denial of non-scientific knowledge. On *Weak Scientism*, there is knowledge other than scientific knowledge; it’s just that scientific knowledge is *better* than non-scientific knowledge. According to *Weak Scientism*, of all the academic knowledge produced by academic disciplines, including scientific disciplines like astrophysics and non-scientific disciplines like philosophy, scientific knowledge is the *best* knowledge we have (emphasis in original).

Accordingly, to object to my argument in defense of *Weak Scientism* by complaining that *Weak Scientism* does not entail that philosophy is useless is to misunderstand my overall argument in Mizrahi (2017).

So I agree with Brown (2017) that the answer to the second question is “no.” But that’s because I have no interest in defending the charge that philosophy is useless. In Mizrahi (2017), my aim is to show that *Weak Scientism* is defensible. If I am right, then *Weak Scientism* is how we *should* understand scientism as an epistemological thesis, regardless of whether scientism has been understood in this way by parties to the scientism debate in philosophy.

3. Does my defense of *Weak Scientism* rest on controversial philosophical assumptions?

Brown (2017, 44) thinks that my defense of *Weak Scientism* rests on a few “controversial philosophical assumptions.” According to Brown (2017), I “assume” that

- (a) Work produced by professional philosophers is a proxy for philosophical knowledge.
- (b) The scientism debate in philosophy is about academic knowledge produced by academic disciplines.
- (c) Academic knowledge produced by academic disciplines can be measured.
- (d) Publications are reliable indicators of academic knowledge produced by academic disciplines.
- (e) Journal articles are reliable indicators of academic knowledge produced by academic disciplines.
- (f) Academic knowledge produced by academic disciplines can be treated equally for the purpose of quantitative comparisons.
- (g) One theory can be said to be qualitatively better than another.
- (h) One theory can be said to be qualitatively better than another in terms of its explanatory, predictive, and instrumental success.
- (i) Academic knowledge produced by academic disciplines can be treated equally for the purpose of qualitative comparisons.

Now, is it accurate to say that (a)-(i) are “controversial philosophical assumptions”? If so, in what sense are (a)-(i) “controversial philosophical assumptions”?

First, to call (a)-(i) “assumptions” is inaccurate and uncharitable, since an assumption is a statement that is taken as true without justification or support. In Mizrahi (2017), however, I do provide some support for (a)-(i). For example, in support of (a), I say the following (Mizrahi 2017, 356):

As Baggini and Stangroom (2005, 6) point out, this ‘question [namely, what exactly makes something philosophy?] is too large to be properly answered [in a book],’ let alone a journal article. Sytsma and Livengood (2016, Ch. 2), for example, discuss six competing accounts of what makes something philosophical. This is why, for the purposes of this paper, I have operationalized ‘philosophy’ as simply ‘what [professional] philosophers do’ (Sparshott 1998, 20). Arguably, as far as answering the question ‘What makes *X* philosophical?’ goes, that may be the best we can do (Lauer 1989, 16).

In other words, I argue that we should operationalize “*X* is a work of philosophy” as “*X* is produced by professional philosopher(s)” because that is the best we can do; all the other accounts of what makes *X* philosophical are problematic. Contrary to what Brown seems to think, then, I have operationalized “*X* is a work of philosophy” in the *least* controversial way (see Sytsma and Livengood 2016, Ch. 2). Now, Brown may find this unsatisfactory and he may disagree with what I say in support of (a)-(i), but that does not change the fact that I do support these statements. To call them “assumptions,” then, is inaccurate and uncharitable.

Second, Brown criticizes what I count as work in philosophy but he does not offer an alternative account for what counts as philosophy. He simply asserts, without argument, that my so-called “assumptions” are philosophical. But he does not tell us what makes something philosophical. Since he objects to my operationalization of what is philosophical in terms of what professional philosophers produce, I suppose he would not want to appeal to it as an account of what makes something philosophical. In that case, it is not clear on what grounds Brown can claim that (a)-(i) are “philosophical.”

In that respect, it is worth noting how strange it looks for someone who wants to defend philosophy from accusations of uselessness to object to (a). After all, if one wants to show that work in philosophy is useful, one *should* want to be able to show that work done by professional philosophers is useful in some sense. Accordingly, whether he accepts (a) or not, Brown *should* accept (a) insofar as he wants to defend philosophy from accusations of uselessness, since by showing that the work of professional philosophers is useful, he could thereby show that philosophy is useful.

Third, just as he asserts without argument that (a)-(i) are “philosophical assumptions,” Brown also asserts without much argument that (a)-(i) are “controversial assumptions.” Take, for instance, his discussion of (a). He simply asserts, without argument, that my way of thinking about knowledge is “philosophically controversial” (Brown 2017, 44), but he does not tell us why it is controversial (or why it is philosophical, for that matter). As I point out in Mizrahi (2017, 353), 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.

Likewise, in his discussion of my alleged “third assumption,” namely, (c), Brown (2017, 45) simply asserts, without argument, that “thinking we can *measure quantitatively* the amount of knowledge across academic disciplines is itself philosophically controversial” (emphasis in original). He does not tell us what makes this alleged “assumption” philosophical. Nor does he tell us what makes this alleged “assumption” controversial. In fact, 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).²

Brown (2017) seems to think that any statement that can be subjected to doubt is thereby controversial. For in his discussion of my alleged “controversial assumptions,” he entertains possibilities that would (if true) cast doubt on them. For instance, in his discussion of (d), Brown

² These remarks apply to the alleged “sixth controversial philosophical assumption,” namely, (f) as well. As I point out in Mizrahi (2017), epistemologists are doing pretty much the same thing when they treat propositional knowledge equally in their analyses of knowledge. That is, “in the same way that epistemologists bracket the content of a proposition when they theorize about propositional knowledge, i.e. knowing that *p*, and treat all propositional knowledge equally, information scientists who use bibliometric techniques to study scientific knowledge can bracket the propositional content of that knowledge and treat each piece of knowledge (measured in terms of publications, citations, and the like) equally” (Mizrahi 2017, 362).

(2017, 46) suggests that teaching could be “a means of passing on knowledge.” Brown seems to be confusing here “passing on knowledge” or *sharing* knowledge with *producing* knowledge. 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. After all, philosophy, or the humanities in general, do not have a monopoly on teaching. Teaching occurs in science departments as well, of course. As Beale (2017, 67) puts it, the scientism debate is about “the idea that science, or the scientific method, is superior to all other modes of inquiry.”

Even if Brown (2017) is right about teaching somehow being a mode of inquiry distinct from science, the mere fact that one can cast doubt on a statement does not mean that the statement is controversial. By this criterion, the claim that Barack Obama is a United States citizen is controversial because some persistently doubt it and refuse to believe that he was born in Hawai’i. Likewise, the claim that there is an external world would also be controversial, on Brown’s criterion of controversy in terms of casting doubt, for what if we are all brains in vats. In other words, there is a difference between being doubtful and being controversial. Simply casting doubt on (a)-(i) is not sufficient for making them controversial.

In fact, Brown’s (2017) criterion for controversy in terms of casting doubt would make all of philosophy controversial, and thus objectionable by his own lights. For he tries to show that “a number of serious philosophical objections remain for the argumentative strategy Mizrahi employs to defend *Weak Scientism*” (Brown 2017, 50) by casting doubt on the premises of my argument, and then claim that they are controversial. But if being doubtful makes a claim controversial, then almost all of philosophy would be controversial, since almost all philosophical theories can be, and have been, subjected to doubt (Mizrahi 2016). Given the track record of philosophy, and Brown’s criterion of controversy in terms of casting doubt, then, we would have to conclude that most philosophical theories are controversial. This is a result that Brown would not want to accept, I take it.

For these reasons, Brown (2017) fails to provide good reasons for thinking that the answer to the third question is “yes.” What Brown labels as “assumptions” are not really assumptions, since I do support the statements he thinks are “assumptions.” 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). What he labels as “controversial” is not really controversial, or at least Brown does not give us a good reason to think that, since simply finding ways to cast doubt on a statement is not sufficient for making it controversial.

4. Is my argument in defense of *Weak Scientism* a philosophical or a scientific argument?

To Brown (2017, 51), my “argument [in defense of *Weak Scientism*] rather *looks like* a philosophical argument” (emphasis added). As I have mentioned above, however, Brown does not give us an account of what makes something philosophical, and he rejects my operationalization of the philosophical as that which professional philosophers do, so it is not clear on what grounds Brown can assert that my argument is philosophical (other than the fact

that it simply “looks like” a philosophical argument to him). As I point out in (Mizrahi 2017, 356), “just as the mere fact that an argument (e.g. William Lane Craig’s Kalam cosmological argument) draws on scientific theories (e.g. the Big Bang theory) does not make that argument a *scientific* argument, the mere fact that an argument draws on philosophical assumptions does not make that argument a *philosophical* argument” (emphasis in original).

In another place, rather than claim that my argument “looks like a philosophical argument” (Brown 2017, 51) to him, Brown suggests that my argument is *not scientific*. As Brown (2017, 51) writes, “in order for Mizrahi’s argument for *Weak Scientism* to count as *science*, the background philosophical assumptions he employs need to be largely uncontroversial for the community of thinkers to which his argument is addressed” (emphasis in original). Brown seems to think that an argument is *scientific* only if an audience of peers finds the premises of that argument uncontroversial.

As I have mentioned above, Brown’s criterion for what makes something controversial (in terms of casting doubt) is too broad, since it makes anything that can be doubted controversial. But let us grant, for the sake of argument, Brown’s criterion of controversy and consider the following common scenario. A scientist presents a paper at a conference. Based on the results of her research, she argues that *p*. The audience, which consists of her academic peers, raises questions about her methods, findings, and conclusion during the Q&A session. On Brown’s criterion of controversy, the premises of the scientist’s argument are controversial, since they are met with doubt from the audience. And on Brown’s condition for an argument being scientific, the scientist’s argument is *not scientific*, since her audience does not find the premises of her argument uncontroversial.

To give a concrete example from the history of science, on Brown’s criteria for “controversial” and “scientific argument,” Darwin’s *The Origin of Species* contains no scientific arguments, since it was met with criticism, doubt, and even “controversy” in the scientific community following its publication in 1859 (Francis 2007, 61-76). A more recent example is string theory. On Brown’s criteria for “controversial” and “scientific argument,” we would have to say that arguments for string theory are not scientific arguments, despite the fact that the arguments for the theory are put forth by physicists (e.g., Edward Witten), the theory is supposed to explain natural phenomena (e.g., strong nuclear force and interactions), it incorporates other scientific theories (e.g., general relativity), it guides scientific research in physics (Becker et al. 2007), and it is currently being tested experimentally (e.g., at the Optical Search for QED Vacuum Bifringence, Axions and Photon Regeneration experiment at CERN’s Large Hadron Collider).

Accordingly, Brown’s (2017) criterion of controversy 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. For these reasons, Brown fails to show that my argument in defense of *Weak Scientism* is a philosophical argument or that it is not a scientific argument.

5. Why think that deductive rules of inference cannot be proved valid in a non-circular way?

One of the objections I defend *Weak Scientism* from in Mizrahi (2017) is the charge of vicious circularity. The charge of vicious circularity is this (Mizrahi 2017, 355):

(O2) It is *viciously circular* to support *Weak Scientism* with scientific evidence (emphasis in original).

In defense of *Weak Scientism* against (O2), I said that (Mizrahi 2017, 362):

the problem with (O2) is that it is not an objection against *Weak Scientism* per se but against any *inferential* way of knowing. This is because even “deductive inference is only defensible by appeal to deductive inference” (Ladyman 2002, 49), as Lewis Carroll’s “What the Tortoise said to Achilles” (1895) makes clear (emphasis in original).

In other words, if (O2) were true, then producing knowledge by *inference* would be viciously circular, whether in science, philosophy, or any other field.

Now, Brown’s (2017, 52) objection against my defense of *Weak Scientism* from (O2) consists in raising the possibility that “we come to know the validity of deductive rules of inference such as modus ponens” in “some non-inferential mode.” As I have already pointed out in Mizrahi (2017), however, to say that rules of inference can be known to be valid “by some non-inferential mode of knowing” (Brown 2017, 52), such as intuition, is to give up on the attempt to *prove* the validity of rules of inference, since a *proof* just is a deductively valid argument, i.e., an inference in which the conclusion follows necessarily from the premises (Mizrahi 2017, 362-363), whereas an intuition, whatever it is (Mizrahi 2014), is *not* a deductively valid argument.

Moreover, recall that Brown’s criterion for a statement being controversial is that the statement can be subjected to doubt. By this criterion, then, Brown’s (2017, 52) claim that “we come to know the validity of deductive rules of inference such as modus ponens” in “some non-inferential mode” is doubtful, and thus controversial. This is because there are putative counterexamples to deductive rules of inference, such as *modus ponens* (Lycan 1994), as well as to argument forms that are taken to be deductively valid, such as hypothetical syllogism (Mizrahi 2013), i.e., examples of arguments that should be valid, if *modus ponens* and hypothetical syllogism are valid, but that seem invalid, as I point out in Mizrahi (2017).

Accordingly, Brown (2017) fails to show that deductive rules of inference can be *proved* valid without relying on those very rules of inference (Psillos 1999, 86). For this reason, his objection against my defense of *Weak Scientism* from (O2) misses the mark.

6. What’s wrong with persuasive definitions of scientism?

In Mizrahi (2017), I argue that (SP) [i.e., “Scientism is a matter of putting too high a value on science in comparison with other branches of learning or culture” (Sorell 2013, x)] is a

persuasive definition of scientism. In my discussion of persuasive definitions, I give the example of defining abortion as murder as an example of a persuasive definition (Mizrahi 2017, 352). Brown (2017, 52) uses this example in his attempt to show that persuasive definitions could be the “conclusions of deductive arguments.” Of course, not all deductive arguments are good arguments. A deductive argument can be invalid or unsound. But let’s look at Brown’s argument for the conclusion that “abortion is murder” in order to see if it avoids transferring “emotive force” (Salmon 2013, 65), “condemning [...] the subject matter of the *definiendum*” (Hurley 2015, 101), or “presupposing an unaccepted definition” (Macagno & Walton 2014, 205).

Brown’s (2017, 53) argument for the persuasive definition “abortion is murder” runs as follows:

14. Abortion is the direct killing of a human being.
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)].

Now, Brown may have intended this argument to be a deductive argument, but it is not valid. Notice the unwarranted shift from “human being” in (14) to “person” in (15), and then in (16). The former is a biological term for a member of the species *Homo sapiens*, whereas the latter is a legal term that comes with rights, such as the right to life. This, of course, is one of the key issues in the abortion debate, i.e., whether human fetuses are human persons that have a right to life. To simply assume that as a premise in an argument for the conclusion that “abortion is murder” is to presuppose “an unaccepted definition” (Macagno & Walton 2014, 205). So, unless we assume that “human being” and “person” mean the same thing, which they don’t, (16) does not necessarily follow from (14) and (15), and thus Brown’s argument for “abortion is murder” is invalid due to this equivocation on “human being” and “person.”

Moreover, notice how the emotionally charged term “innocent” is smuggled into (15). In what sense can a fetus be said to be “innocent,” i.e., not guilty of a crime or offense? Perhaps a fetus can be said to be innocent only in the trivial sense that it is *incapable* of committing crimes, given that it is unborn and still developing. But in that case, by using the emotionally charged term “innocent,” (15) still transfers “emotive force” (Salmon 2013, 65) and condemns “the subject matter of the *definiendum*” (Hurley 2015, 101). It might be argued that the fetus can be considered innocent (or not) insofar as it can endanger the life of the mother as in the case of life-threatening pregnancies, such as an ectopic pregnancy. But in that case, the fetus could be considered guilty of the crime of reckless endangerment (i.e., acting in ways that put another person at risk of injury or death), and hence *not* innocent.

Brown’s (2017, 53) argument for the persuasive definition of scientism, according to which “Scientism is the view that commits its advocates to putting too high a value on--or having an exaggerated confidence in--science,” suffers from the same problems as his abortion argument.

19. Scientism is the view that science is the only, or best, kind of knowledge.

20. Therefore, if scientific knowledge is not the only, or best, kind of knowledge, then scientism is a view that commits its advocates to putting too high a value on—or having an exaggerated confidence in—science [from (19)].
21. If p , then scientific knowledge is not the only, or best, kind of knowledge.
22. p .
23. Therefore, scientific knowledge is not the only, or best, kind of knowledge [from (21) and (22), MP].
24. Therefore, scientism is a view that commits its advocates to putting too high a value on—or having an exaggerated confidence in—science [from (20) and (23), MP] (Brown 2017, 53).

In particular, notice the equivocation on “only” and “best,” which makes the argument invalid. *Strong Scientism* is the view that “Of all the knowledge we have, scientific knowledge is the *only* ‘real knowledge’” (Mizrahi 2017, 353; emphasis in original), whereas *Weak Scientism* is the view that “Of all the knowledge we have, scientific knowledge is the *best* knowledge” (Mizrahi 2017, 354; emphasis in original). In Mizrahi (2017), I set out to defend the latter, not the former. This means that Brown’s conditional in (20), namely, “if scientific knowledge is not the only, or the best, kind of knowledge, then scientism is a view that commits its advocates to putting too high a value on—or having an exaggerated confidence in—science,” is misleading. If *Strong Scientism* were false, i.e., if it were not the case that scientific knowledge is the *only* real knowledge, then it would follow that non-scientific knowledge is also real knowledge. And from that it would follow that confidence in scientific knowledge alone, to the exclusion of non-scientific knowledge, which is also real (as we are assuming now, for the sake of argument), would be exaggerated. For it would be a mistake to ignore non-scientific knowledge if it were just as real as scientific knowledge.

But if *Weak Scientism* were false, i.e., if it were not the case that scientific knowledge is the *best* knowledge, then it would follow that non-scientific knowledge is just as good as scientific knowledge. But from that it would *not* follow that confidence in scientific knowledge over non-scientific knowledge would be exaggerated. For, if two equally good options are available, it is *not* a mistake to prefer one to the other. As I have argued in Mizrahi (2017, 352), one would have to show, rather than make it true by definition, that preferring one (scientific knowledge) to the other (non-scientific knowledge) is a mistake.

Of course, Brown (2017, 53) simply assumes, without argument, that there is some item of knowledge, which he labels p in premise (22), 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.

For these reasons, Brown’s attempt to show that a persuasive definition of scientism, such as the one I criticize in Mizrahi (2017, 352), can be the conclusion of a valid deductive argument fails. In addition to equivocating on “only” and “best,” the premises of Brown’s argument for a persuasive definition of scientism still transfer “emotive force” (Salmon 2013, 65) and condemn “the subject matter of the *definiendum*” (Hurley 2015, 101) by using locutions like “putting too high a value on” and “exaggerated confidence” (cf. Mizrahi 2017, 352). They

also presuppose “an unaccepted definition” (Macagno & Walton 2014, 205) by assuming, without argument, that there is some piece of knowledge, *p*, that is both non-scientific and better than scientific knowledge.

Conclusion

To sum up, I have defended *Weak Scientism* from Brown's (2017) objections, and thereby have shown again that *Weak Scientism* is a defensible position, which is what I have set out to do in Mizrahi (2017). I would like to end this reply to Brown (2017) by pointing out what I take to be a glaring omission in his discussion of my defense of *Weak Scientism*. Even though Brown (2017, 49) admits that, like good scientific theories, “good philosophical theories *explain* things” (emphasis in original), he does not tell us what makes an explanation a *good* explanation. As I point out in Mizrahi (2017, 360), the good-making properties of 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. Indeed, almost any introductory textbook on logic and critical thinking, including those written by philosophers, includes a chapter on Inference to the Best Explanation (IBE) where these properties are discussed. For example, according to Sinnott-Armstrong and Fogelin (2010, 257), “common standards for assessing explanations [include] falsifiability [i.e., testability], conservativeness [i.e., coherence], modesty, simplicity, power [i.e., unification], and depth.”³

So, if “good philosophical theories *explain* things,” as Brown (2017, 49) admits, and if good explanations are those that exhibit the properties of unification, coherence, simplicity, and testability, then it follows that *good* philosophical explanations must have these properties as well. 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 predictive 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, 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. This is the glaring omission in Brown's (2017) discussion of my defense of *Weak Scientism*; he does not address this argument from IBE: “if IBE is ubiquitous in scientific and non-scientific reasoning, and good explanations are those that are comprehensive, coherent, simple, and testable, then it follows that, in both scientific and non-scientific contexts, the best explanations are those that are comprehensive, coherent, simple, and testable explanations” (Mizrahi 2017, 362).⁴ As I argue in Mizrahi (2017), and as Sinnott-Armstrong and Fogelin (2010, 259) point out as well, IBE is everywhere.⁵ So everyone is in the business of producing *good* explanations, but science is *simply the best; better than all the rest*.

Acknowledgments

³ See also Rudinow & Barry (2008, 266-269), Hendrickson et al. (2008, 76), Govier (2010, 298-302), Velasquez (2012, 71-73), and Douven (2017).

⁴ In Mizrahi (2017), I discuss two failed attempts to use IBE in philosophy: an IBE for the Real World Hypothesis (Mizrahi 2017, 358-359) and an IBE for scientific realism (Mizrahi 2017, 360-361). For more on the latter, see also Mizrahi (2012).

⁵ See also Harman (1965) and Douven (2017) on the “ubiquity of abduction.”

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