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Weak Scientism and Triviality: A Response to Moti Mizrahi

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Moti Mizrahi (2017a, 2017b, 2018a, 2018b, and 2018c) defends weak scientism, the view that scientific knowledge is the best kind of knowledge. I shall critique his case for weak scientism by arguing that Mizrahi's criterion of betterness *C* is trivial, and that without an argument for the preferability of *C*, it is open for the critic to motivate another criterion of betterness *C** that entails that philosophical knowledge is the best kind of knowledge. I show this by drawing out the consequences of a proposed *C**. I conclude by arguing that if weak scientism is true relative to *C*, then something like weak philosophism would be true relative to *C**. Since both criteria seem symmetrically trivial, I recommend that a symmetry breaker must involve some overarching argument for why *C* is better than *C**, or why *C* is the best criterion of betterness on offer.

Setting the Stage

Mizrahi proposes weak scientism as the view philosophers should consider when defending philosophy from the accusation of uselessness.

The crux of Mizrahi's essay is the thesis that scientific knowledge is the best kind of knowledge. It is *quantitatively* the best because of the sheer volume of its published research (output) and citations (impact), as compared to other non-scientific disciplines in the academy. It is *qualitatively* the best because it consists of theories with the most explanatory, instrumental, and predictive success. Combine qualitative and quantitative measures into a single criterion of betterness *C*. Thus, according to *C*, scientific knowledge is the best kind of knowledge.

It is important to qualify the kind of knowledge Mizrahi is talking about. He is talking about *academic* knowledge, not the kind of knowledge one has in terms of a *theory* or *analysis* of knowledge. Mizrahi clarifies: "Like other authors in the literature on scientism, all of whom use the term 'knowledge' (see, e.g., Peels 2016, 2462), by 'knowledge' I do not mean justified true belief or any other analysis of knowledge in terms of necessary and sufficient conditions, for that matter. Rather, 'knowledge' is meant to refer to the aim or goal of inquiry or the final product of inquiry" (2017a, 5). Thus, the goal of any academic discipline is to produce a kind of knowledge peculiar to that discipline. One can find such productions in books, journals, lectures, conferences, etc.¹

The accusation of uselessness should be understood in terms of this kind of knowledge. Non-scientific knowledge is not useless in every sense. The accusation is regarding uselessness in the *academic* sense. If two theories, *T* and *T**, are in conflict, and *T* is the product of the academic discipline of science, and *T** is the product of the academic discipline of philosophy, then, per *C*, *T* should be preferred to *T**, since *T*, and not *T**, will satisfy *C* better than *T**.

¹ This is Mizrahi's operational definition of academic knowledge.

At this point, Mizrahi has provided objects of measurement and a means of measuring. The objects of measurement are the productions. The means of measurement are the two components of C. When the productions are measured by C, the inevitable result is that scientific knowledge is the best. No other academic discipline outshines science in terms of the number of products produced (along with the citations that measure impact), and in terms of the explanatory, instrumental, and predictive success science achieves.

Interestingly, Mizrahi provides a scientific case for weak scientism via the scientific procedure of “inductive generalizations from samples.” Let the samples represent the aforementioned products of academic knowledge, and let the generalization be the probabilistic claim that, of the samples introduced, scientific knowledge is better than non-scientific knowledge. For any two instances of academic knowledge, K and K*, the scientist can test the samples to determine whether K is better (or worse) than K* by how it satisfies C. If K satisfies C better than K*, then K is better than K*.²

Weak Philosophism and Triviality

Perhaps Mizrahi’s overall argument might be summarized as follows:

- P1: An instance of academic knowledge K satisfies C the best if, and only if, K is the best kind of academic knowledge.
- P2: Scientific knowledge is an instance of academic knowledge K that satisfies C the best.
- C: Therefore, scientific knowledge is the best kind of academic knowledge.

The argument is valid, but P1 seems trivially true relative to the scientism debate. Something is trivially true relative to the scientism debate if it does not tell us anything of any consequence regarding that debate. Consider the following point: there seems to be missing a justification *for* C itself. Mizrahi just seems to stipulate the measures that constitute C and then draws out their epistemic implications. Without justification for thinking that C itself is the best, or the most preferable, criterion for determining the betterness of different kinds of academic knowledge, P1 seems trivially true relative to the scientism debate. It will be very easy, absent such justification, for a critic of weak scientism to present another criterion of betterness C* that would have the same kind of triviality, but with the consequence that philosophical knowledge is better than scientific knowledge, or that philosophical knowledge is the best kind of academic knowledge.

Here is a possible way to present a trivial C* and then to draw out *its* epistemic implications. Rid oneself of Mizrahi’s quantitative criterion, and tweak the qualitative criterion in such a way that it is more favorable for philosophical knowledge. After all, there is no argument for why a proposed criterion *must* involve a quantitative measure. Adjust the qualitative measure by qualifying instrumental and predictive success so as to make it more suitable for

² For more details, see Mizrahi’s seminal essay and his subsequent responses to Christopher Brown (2017a and 2017b) and Bernard Wills (2018a, 2018b, and 2018c).

philosophical knowledge. Then, restrict explanatory success to a particular domain. Make either the domain itself or features of the domain accessible (or the most accessible) to philosophical methods, and tailor instrumental and predictive success to how it interfaces with that domain or the features of some overlapping domain better than scientific methods. After that, add another element to the qualitative criterion that highlights a strength of philosophical knowledge in its relationship to science, a strength that science itself cannot account for.

Here is one possible element. Motivate a thesis according to which the explanatory, instrumental, and predictive success of scientific knowledge is completely dependent on, or relies upon, the plausibility of any array of philosophical assumptions. The point is not to say that the assumptions are ignored or left without justification, or that the philosophical assumptions underlying scientific knowledge make such knowledge philosophical. That would have the absurd consequence that all knowledge is philosophical. The relying/depending relation itself is what indicates qualitative superiority. If scientific thesis ST relies, or depends, on philosophical assumption PA, then ST is qualitatively inferior to PA. Consider the following example.

Take the most philosophically conscious working scientist imaginable, a scientist fully conscious of the robust debates going on in philosophy of science and how they connect to other debates in the typical branches of philosophy in general. Suppose she is investigating whether gravity should be quantized or whether quantum phenomena should be gravitized. Testing her theory will inevitably involve a bevy of background assumptions, a substantial portion of which are philosophical. For example, if she is a realist, one philosophical assumption will have to do with the existence of a theory-independent world.³ But here is where the qualitative measure comes in. If she lands on a theory of quantized gravity, her realism cannot be less certain than her theory of quantized gravity, which leads to a key point.

To whatever extent her preferred theory depends on philosophical assumptions, the theory itself cannot be more certain than the assumptions themselves.⁴ The epistemic degree to which the theory of gravity is true (or probable) cannot be more certain than the truth (or probability) of the theory of truth or probability (a philosophical assumption for interpreting the truth or probability of the theory of gravity) upon which the theory of gravity is based.

³ Mizrahi mentions what he calls “external world realism”, comparing it to the General Theory of Relativity (GTR), making it inferior to the latter relative to C’s qualitative measure, even going so far as to make it “hardly more successful than “the skeptical hypothesis” (2017a, 13). However, this does not affect my point. My point is relative to C*’s qualitative measure, and this measure can be applied to Mizrahi’s comparison. First, if there is not a good reason to think that realism is preferable to skepticism, it is an open question whether GTR should be understood realistically or not. If we choose a more pragmatic, instrumentalist sort of anti-realism, then my point still applies: GTR itself cannot be more certain than the philosophical instrumentalism upon which it is based. The philosophical assumption holds GTR hostage to the idea that space-time is not *really* bent or distorted; it is, at best, *empirically adequate*. This dependence-relation alone buttresses a case for C*’s qualitative measure.

⁴ This point is taken directly from Moreland 2018, 55-57, 74-75.

This is not to mention all the other philosophical theories lying in the background about what constitutes a theory, beliefs, rationality, realism, varieties of anti-realism, etc. The epistemic degree to which a theory of truth is unlikely will bleed into the epistemic degree to which a theory of gravity is unlikely. If the probability of the truth of the gravitational theory is at least .8, then the philosophical theories involving probability, belief, or truth will also have to be at least .8, if not higher.⁵ However, this relation is not symmetric.

Take our philosophically informed scientist again. The degree of certainty she has in a philosophical theory could be *more* than that degree attaching to her belief in a scientific theory. Suppose she has that kind of certainty attaching to belief in the necessity of certain kinds of analytic claims. Suppose the kinds of claims she is considering are those she cannot deny on pain of contradiction. In this case, her philosophical belief, which could be defended in any academic journal or book, would have a degree of certainty that the scientist could only hope for. Due to her methods, the scientist cannot reach necessary claims. If she does discover what Kripke called *a posteriori necessities*, the identification of such a necessity will not be *qua* scientist, but *qua* metaphysician. The scientist's method made the identification possible; the identification itself relies on the metaphysician's method.

Suppose she has another kind of philosophical belief she can deny without contradiction. Suppose she believes that the obtainment of an actually infinite number of definite and discrete things or events is a metaphysical impossibility. She can affirm that such a state of affairs is *logically* possible, that it does not involve a contradiction (it does not violate a thesis in first-order logic), that Cantor has given her a perfectly intelligible way to talk about infinite sets and so on. But on the basis of various and sundry thought experiments⁶, she comes to

⁵ Noticing this point takes some care. *Prima facie*, there does not seem to be a conscious link between the confirmation of (or belief in) a scientific theory and the indirect relationship that has to the epistemic justification of the philosophical assumptions that attend such confirmation (or belief). A scientist could jeer at the utility of philosophy in the lab and still succeed in getting excellent results. But this skirts the issue. Philosophy may be useless at getting the scientific results *qua* science, but that does not imply that the methods used, the interpretations of the results given, or the assumptions motivating research, are not imbued with a constellation of unacknowledged philosophical assumptions. The attempt to shed any scientific method, discovery, interpretation, law, or theory of any philosophical assumptions seems futile. For example, if Einstein's Special Theory of Relativity is implied by his decision to operationalize simultaneity in terms of clock synchronization, then the theory itself seems to be reliant upon some elements of the philosophical theory of anti-realistic operationalism. To argue that the theory's empirical content underdetermines the truth of multiple philosophical theories is not the point. It is the particular philosophical theory subscribed to (or assumed) that cements the asymmetric probability distribution. No matter which philosophical theory it is, it is for *that* scientist a philosophical theory that cannot be more certain than the scientific theory upon which her belief is based. Adjudicating the philosophical question needs to be done on other, first-order, grounds. Empirical concerns will not break the symmetry due to the empirical equivalence of multiple philosophical theories undergirding any given scientific theory.

⁶ I do not have the space to critique Mizrahi's critical stance toward *a priori* intuition, thought experiments, or philosophical expertise. See Mizrahi's (2018a) bibliography for references. These stances are staples of that kind of naturalized philosophy called *experimental* philosophy, based on a kind of metaphilosophy, or a set of methodological dispositions, I do not subscribe to. If Mizrahi decides to raise objections from this perspective, I might inchoately preempt them by pointing out that a metaphilosophical case can be made for *first philosophy*, and that the methods of experimental philosophers can be appropriated on a case by case basis without delegitimizing intuition and thought experiments entirely. There needs to be a model of disciplinary interface,

believe that the *metaphysical* possibility of an actual infinite is absurd. The implication is that the past-eternality of the universe is either necessarily true or necessarily false. But consider her physics-based belief in the falsity of a past-eternal universe. No matter how confirmed through repeated experiment and no matter how many times the physics-based theory yields testable, novel predictions, her belief will only have a high degree of probability. Perhaps the critic of weak scientism, seeking to tweak the qualitative part of C* even more, could add another element: favor those beliefs that are necessarily true over those that are probably true. C* will then imply that those theories that are necessarily true are *better* than those theories that are probably true.

My point is not to argue for the superiority of C* over C. Mizrahi does not argue for the superiority of C either. He assumes C and draws out its epistemic implications. My point is to argue that if there is no argument for the superiority of C, it is open for the critic of weak scientism to postulate C* and draw out C*'s epistemic implications. Supposing the superiority of C, weak scientism follows. Supposing the superiority of C*, something that could be called *weak philosophism* follows, the thesis that, of all the knowledge that there is, philosophical knowledge is the best.

Two Objections

A possible objection might be the following. Grant that C and C* give us the superiority of different kinds of knowledge. It still does not follow that weak philosophism gives us the best *academic* knowledge. The publications and citations of science still outnumber philosophy. Perhaps an indirect argument for C over C* is the idea that C, and not C*, is more reflective of the quantity of epistemic output that occurs in the academy.

In response, the critic of weak scientism needs to find a way to rid herself of the quantitative measure, as I did above. All she has to do is avail herself of Wills' argument from recursiveness (AFR), an argument that I do not think was sufficiently answered by Mizrahi's criticisms. The aim of AFR is to get the quantitative measure to cancel itself out relative to different academic disciplines.⁷ If AFR succeeds, we are left with the qualitative measures of C and C*. There is nothing explicitly non-academic about both measures, and so we are left

where the methods and domains of different disciplines interact, correct, prune, and integrate with one another. Further, I cannot see how the experimental philosopher can metaphilosophically critique *first philosophy* without using *first philosophy*. She must either beg the metaphilosophical question in her critique or uncritically jettison the methodological dispositions of *first philosophy* by adopting the dispositions of experimental philosophy, appealing to nothing more than the triviality of C.

⁷ The reader can make up her own mind in Wills 2018a, 2018b, and 2018c. Here is my paraphrase of AFR. Take any proposition P. For any proposition P, it is always possible to semantically ascend and affirm that 'P is true' (Tp). The semantic ascension can continue: 'it is true that Tp' (ITp), 'it is true that ITp' (ITITp), *ad infinitum*. Since semantic ascension applies to both scientific and non-scientific propositions, both kinds of propositions could be multiplied potentially infinitely. Therefore, the *quantity* of true propositions for any discipline are equinumerous, and provide any discipline with a potentially infinite quantity of knowledge. That the set of *published* scientific propositions outnumber the set of *published* non-scientific propositions is the rub. This is not sheer quantity, but published quantity. Wills addresses this in footnote 1 (2018c).

with C and C* and their various academic epistemic implications. As long as both measures are plausibly academic, all that follows is that relative to C, scientific knowledge is the best, and relative to C*, philosophical knowledge is the best. These consequences do not seem to lead to anything interesting in terms of the scientism debate. It would not follow that science is better than philosophy *simpliciter*, but that science is better at science than philosophy, and that philosophy is better at philosophy than the sciences. What is needed is an argument that C is better than C* in terms of academic knowledge, and that is what Mizrahi does not give us.

A second response might take more advantage of triviality. Just as C is trivial, C's quantitative measure seems trivial. Why must the quantitative measure only take into account output and impact? Suppose I define the quantitative measure to include not just philosophy but all the non-scientific academic disciplines. The Natural Sciences include 211 disciplines, and, collectively, Non-Scientific Disciplines include 576 disciplines.⁸ Now argue that an instance of academic knowledge is better if, and only if, it is more widely distributed among the academy. This is not to argue that this measure is a good one for quantitative betterness *simpliciter*. That is the point. Neither has Mizrahi. He has merely stipulated what the quantitative measure will consist in and measures the productions by that standard. Without an independent argument for why Mizrahi's quantitative measure is better than any other quantitative measure, the measure itself seems trivial. I am sure the reader can think of other trivial, quantitative measures if this one does not work.

Here is another possible objection. Perhaps Mizrahi might object that C's qualitative measure is the best because it takes into account explanatory success. Academic disciplines engage in inference to the best explanation (since they are all in the business of explanation). Thus, it makes sense that any C that does not include explanatory success is inferior. There are a couple of responses here. First, Wills' argument that there are analogical applications of the explanatory virtues across different disciplines is persuasive (2018b). If so, then the degreed satisfaction of the virtues of an explanation have to be measured relative to the academic domain. Testability in philosophy is different from, though analogical with, testability in the empirical sciences. If analogical, then different; if different, then different qualitative measures indexed to the particular analogical extensions are needed. The cognitive excellence *brilliance* is analogical between Michael Jordan and Albert Einstein. Thus, the qualitative measures for *brilliance* are tailored to the distinct domains wherein *brilliance* manifests itself. It would be misplaced to say Einstein was more brilliant than Jordan. It is the same with distinct academic domains and explanatory success. The rules for the game of explanation are relative to the kind of domain in which the game is played.

Second, academic philosophy is so methodologically heterogenous that to pigeonhole it as primarily an explanatory discipline does not do it justice. The literature on metaphilosophy

⁸ See http://www.thingsmadethinkable.com/item/fields_of_knowledge.php. I excluded the Applied Sciences and the Formal Sciences because it is unclear how to denominate borderline cases sufficiently to properly categorize the disciplines without needlessly complicating the disciplinary framework. I also assume that the knowledge given to us by the Soft Sciences qualify as non-scientific knowledge, confining scientific knowledge to the Hard Sciences.

bears this out. Some, like Peter van Inwagen, eschew the project of explanation altogether, opting for description instead.⁹ The Postmodern and Continental wing of philosophy would most certainly deride the idea as being scientific (in the sense of imposing a scientific method onto a non-scientific discipline). There are also considerations of Praxis Philosophers, along with the way philosophy is practiced in non-Western academies. Space prohibits in-depth analysis, but I invite the reader to study this further.¹⁰

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⁹ See van Inwagen 2016, 51-56.

¹⁰ See Gendler (2010), Feser (2013), and Nicoli (2016), D'Oro and Overgaard (2017) for further study.

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