

Response to Commentators on *Morality and Mathematics*

Dogramaci Comments

(Q1a) What makes two distinct concepts like one another?

- *First Answer:* There are clear cases (as with most philosophical terms like “similar enough”). Hyperbolic space is like Euclidean space. The subjects of Quine’s or Azcel’s theories, or of ZF + AD, or ZF + V = L are set-like (assuming ZFC + LCs). The properties picked out by Moral Twin Earthers are moral-like, even if Boyd is right.
- *Deeper Answer:* Ultimately, I am a pluralist about likeness too, construed as factual! So, what counts as set-like is best thought of as a practical question. Transposed to this key, I advocate grouping things more or less as we actually do (as opposed to regarding, say, Euclidean geometry as a fundamentally different sort of thing from hyperbolic geometry).

(Q1b) Why should we not care what our language latches onto (given that we formulate our original questions using our own language, or concepts)?

- *First Answer:* If one could vindicate the significance of the concepts we happen to use *merely* by pointing out that we use them to frame questions of traditional concern, then the whole project of conceptual criticism could be rejected from the start. But, on the contrary, sometimes our actual concepts are unsatisfiable (the logical concept of set), merely unsatisfied (time-with-absolute-simultaneity), or otherwise objectionable (boche).
- *Second Answer:* There are clear counterexamples to the suggestion that pluralism, *qua* a metaphysical thesis, cannot deflate traditional debates, independent of semantic theory. The debate between Hamkins and Woodin over whether CH is a serious question has nothing to do with natural language semantics. Similarly, one could not vindicate the search for what is *really* simultaneous with what by showing that, actually, we all happen to refer to the property of simultaneity-relative-to-reference-frame-R with “simultaneous”. In these cases, it is the *mere* fact that reality is rich -- that there are multiple exemplified properties in the vicinity -- that deflates the original question.
- *Third Answer:* That the problem is not semantic is widely recognized in metaphysics. Metaphysicians appeal to metaphysical privilege precisely to vindicate the “substantiveness” of various debates. One can confuse metaphysical privilege and semantic determinacy because a common version of metaphysical privilege actually serves to support semantic determinacy as well (i.e., Lewis-Sider reference magnets).
- *Upshot:* It does follow that the compatibilism debate, construed as factual, is verbal, if pluralism about this area is true. (I take this to confirm a common suspicion about the

free will debate.) But it can go proxy for non-factual *practical* questions about how to treat people. You say that a debate over the Parallel Postulate is misconceived because that postulate does not “derive” from other facts. But compatibilism need not derive from other facts *in the logical sense that the Parallel Postulate does not*. In the sense in which compatibilism *does* derive -- namely, that we arrive at it by conceptual analysis or by considering cases and abducting -- the Parallel Postulate can derive from other facts too. My point is that “deriving” compatibilism or its negation, in this sense, is no more useful than deriving the Parallel Postulate, or its negation, in this sense, given pluralism.

(Q2a) Does the New Open Question Argument work equally for all evaluative terms? Why could there not be a concept of guidance-giving ought? Rinard introduces a concept of ought according to which “settling what [one] should, in this sense, do properly settles what to do.”

- *Answer:* Even if it does properly settle what to do, it does not settle* what to do! If the original Open Question worry was compelling, it just rearsises *vis a vis* “proper settling”.
- *Upshot:* I do not deny that there is “such [a] thing as the concept of the guidance-giving ought”. My claim is that “the Moorean question *does*...arise for it [my emphasis]”. For there is also the concept of the guidance*-giving ought, and now our question just gets transposed: whether to do what we guidance-giving ought or guidance*-giving ought to.¹

(Q2b) What do you mean that resolving all evaluative questions, factually construed, leaves open the practical question of what to do?

- *Answer:* This is really just the so-called “attitude problem” for non-cognitivism. All non-cognitivists face the problem of specifying the elusive attitude. It is pressing. The New Open Question Argument tries to provide an independent basis for believing that the problem is all of ours. The elusive question is what all of us address in acting. If we are convinced Cornell Realists, say, and come to realize that there is twin-ought along with ought (whether or not anyone’s language latches onto it) the question arises whether to regulate our behavior by consulting it. Since this cannot be the question of whether we *ought* to regulate our behavior by consulting it, on pain of triviality (and similarly for other normative terms), this what-to-do question cannot be identified with a factual one.

(Q2c) Can you say what the new problem of safety is without metaphors or scare-quotes?

- *Answer:* Yes. We can frame it in terms of imperatives. We could have easily had moral* instead of moral concepts, according to which we ought* kill the one to save the five (though we ought not kill the one). But do not kill the one to save the five!

(Q7) Are “piecemeal” responses to debunking arguments equally circular in the moral and mathematical cases? Are circular explanations bad? Why does it seem so if not?

¹ The hybrid expressivist has more sophisticated options available, but only because they introduce a non-factual element to the semantics.

- *Answer:* They are equally circular. I think that all explanations of the reliability of our beliefs in metaphysically necessary facts share an epistemic profile. But that cannot be a viciously circular one if skepticism is false, for the reasons discussed in Section 5.7.

(Q8) Why should we care about whether our beliefs are safe?

- *Answer:* Maybe we should not. The relevant claim of the book is that our moral beliefs have as strong a claim to being safe as do our mathematical beliefs, realistically construed.

Dutilh Novaes Comments

Clarificatory Points:

- I do not quite define safety as Dutilh Novaes suggests (see Section 4.6). I define a belief that P to be safe when we could not have easily had a false belief as to whether or not Q, where Q is any belief similar enough to P (using the method that we actually used to determine whether or not P).
- I do not quite define mathematical pluralism as the view that any consistent mathematical theory is true of its intended subject (see Section 4.6). The problem with this formulation is that it engenders pluralism about (first-order) consistency, and, hence, pluralism about pluralism, by Gödel's Second Incompleteness Theorem (see Section 6.2)! I define pluralism as the view that any arithmetically sound theory is true of its intended subject.
- I take it that every realist is a pluralist about pure geometry (save, perhaps, Frege!). What makes pluralism controversial is its extension of this attitude to foundational theories, like set theory.
- Mathematical pluralism is *defined* as a realist view, so the fact that it entails realism is not supposed to be a significant conclusion. The surprising point is that there is epistemic pressure for realists to be pluralists, and, hence, to give up on the objectivity of mathematics, while there is deliberative pressure for practical objectivists to be anti-realists, since otherwise the question of what to do would be like the question of whether the Parallel Postulate is true, understood as a pure mathematical conjecture.
- I am a logical pluralist as well (Section 1.6 and 7.2). So, I accept classically inconsistent theories! I just do not accept trivial ones (i.e., theories that imply S and \sim S for every S).

(Objection) Even if we could not have easily had a false belief as to whether or not P, for typical mathematical propositions, P, it seems that we could have easily failed to have a view as to whether P one way or the other. It could have easily been that P was never salient to us. Indeed, the challenge to explain salience is especially pressing for me, given my radical pluralism.

- *Response 1:* I do not see how the apparent impossibility of answering the challenge of showing that we could not have easily had a false belief *or no belief* as to whether P could *undermine* our belief that P. So, I do not see how it could satisfy the constraints that have been placed on the reliability challenge. After all, I could have easily had no view as to whether we can simultaneously measure different components of the spin of an electron, because I could have easily failed to study quantum mechanics. But the appearance that this is so does not threaten my justification for believing that we cannot do this. So, while I think that it is a very interesting and important question why the mathematical or moral contents that are salient to us came to be salient to us, I do not believe that this question bears on whether there is an epistemic parity between the cases.
- *Response 2:* I also disagree that the “salience challenge”, *insofar* as it is pressing, is more pressing for the pluralist. Whether there is “one true V” or a multiverse of set-theoretic universes has nothing to do with why (causally) we believe what we do, or what set theories are epistemically possible for us. If it did, then we could rule out the “one true V” view from the start by simply observing that pluralism is epistemically possible! Despite what Godel is sometimes taken to suggest, nobody has ever even sketched how mathematical entities could *cause* us to have the mathematical beliefs that we have.
- *Further Thoughts:* I strongly agree with Dutilh Novaes about the contingency of our mathematical beliefs, which is a central theme of Chapter 5. But I wonder if she does not formulate a false dichotomy when she suggests that we must choose between the view that mathematics is necessary and eternal and the view that it is contingent. I believe that mathematical *truths* are indeed “metaphysically” necessary and eternal (though I do not regard metaphysical necessity as absolute necessity). It is merely our *beliefs* that are not. Moreover, I do not see how anyone could claim otherwise. We are, after all, contingent beings in a contingent physical world! So, of course our beliefs will be contingent.
- It is exactly this disconnect between the necessary subject matter of mathematics and the contingent forces that shaped our beliefs which generates the reliability challenge.

(Question) What place do I think that empirical research on cognition has in the dialectic?

- *Response:* I think that it bears on the extent to which our moral and mathematical beliefs are safe, which is central to the dialectic. Indeed, it could turn out to land us in skepticism if it turns out that we could have easily had arithmetically unsound, not to mention, inconsistent beliefs. In that case, not even pluralism could save us from skepticism. But I do not think that the empirical results alone can settle the question of safety. In order to decide whether we could have easily had a false belief as to whether or not P (using the method we actually used to determine whether P) we need to know how to order worlds and individuate methods. These tasks are paradigmatically armchair.