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The Ethics-Mathematics Analogy

There is an influential tradition of comparing ethics to mathematics. Plato associated ethical and

mathematical knowledge (Burnyeat 2000), and later rationalists stressed an analogy between

simple arithmetic propositions and simple ethical ones (Clarke 2010/1705, 12, Peacocke 2004,

201).[1] According to this analogy, both ethical and mathematical propositions would be

knowable *a priori* -- i.e., independent of any particular sensory experience. So, ethical realism

and mathematical realism would be of a piece, however different ethics and mathematics may

appear.

Other philosophers have emphasized differences between the cases. Mathematical propositions

admit of proof or refutation, while ethics is the subject to endless controversy (Rachels 1998, 3).

Moreover, mathematical theorems are logical consequences of empirically confirmed scientific

theories, but ethical theories seem to be immune to empirical confirmation in this way (Harman

1977, 9-10). Such differences would seem to show that ethical realism is on worse footing than

mathematical realism, after all.

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[1] See Gill [2007] for an overview.

In this article, I discuss apparent similarities and differences between ethical and mathematical knowledge, realistically construed. I argue that some are are merely apparent, while others are of little philosophical consequence. There is an important difference between the cases. But it is not an epistemological difference *per se*. The difference is that ethical knowledge, if it is practical, cannot fail to be *objective* in a sense that factual knowledge can. One upshot of the discussion is radicalization of Moore's Open Question Argument. Another is that the concepts of realism and objectivity, which are widely identified, are actually in tension.

1. Self-Evidence, Proof and Disagreement

The principal reason that ethical knowledge invites analogies with mathematical knowledge is that both areas can appear to be *a priori*. Just as we do not attempt to empirically discover whether there are infinitely-many twin primes, "we do not attempt to discover what people ought to do in particular circumstances by...performing crucial experiments" (McGrath 2010, 108-9). Of course, *whether* the circumstances are ones in which, say, happiness is maximized is an empirical question. But that something is or is not to be done when happiness is maximized does not seem to be. This similarity has led various philosophers to claim that "[t]here is the same kind of...support for the moral a priori thesis" as for the view that "we are justified in accepting that $2 + 2 = 4$...without...reliance on...our perceptual experiences" (Peacocke 2004, 201).[2]

It might, however, be thought the analogy ends there. Even if our ethical and mathematical beliefs would both be *a priori* justified *if they were justified at all*, our mathematical beliefs

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[2] I use "ethical" and "moral" interchangeably throughout.

would seem to have much better claim to being justified. After all, "[i]n mathematics there are proofs….But moral facts are not accessible by…these familiar methods" (Rachels 1998, 3).

In order to assess this contrast, we need to clarify what is meant by "proof". At first pass, a proof is deduction sketch from some sentences labeled "axioms". But there is a proof of any claim whatever in *this* sense. For any sentence, S, just let the axioms be {S}! What matters is how mathematical axioms compare to alleged ethical "axioms".

Unlike ethical principles, it is often claimed that mathematical axioms "are *self-evidently* true" (Greene 2013, 184, italics in original). But, on any reasonable conception of self-evidence, this is simply incorrect (Fraenkel, Bar-Hillel, and Levy 1973, Forster 2018, Maddy 1988a & 1988b, Shapiro 2009). First, if any mathematical propositions are self-evident, then it is generally the *theorems which the axioms imply*, rather than the axioms themselves (Godel 1990/1944, 121). Russell pointed out that we believe the axioms "because we can see that their consequences are true, instead of believing the consequences because we know" the axioms (1973/1907, 273–274). In other words, the logical order of our mathematical theories is often opposite their justificatory order -- as in the empirical sciences. Second, there remain intractable disagreements over the axioms of all of our mathematical theories -- from recondite axioms of higher set theory (Mayberry 2000, 10, Jensen 1995), to the characteristic axiom of the calculus (Kilmister 1980, 157), to such elementary axioms of arithmetic as the first-order induction schema (Nelson 1986, 1) and the principle that every natural number has a successor (Zeilberger 2004, 32-3).[3]

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[3] Another reason to doubt the epistemological significance of what is called "proof" in mathematics is that standard proofs use classical logic. But whether classical logic is correct is also the subject of controversy. So, a classical

Of course, there are heretics in every field. So, it might still be rejoined that "persistent

disagreement on foundational questions…distinguishes moral theory from inquiry

in…mathematics, certainly in *degree*" (Leiter 2009, 1, my emphasis). But what is the pertinent

"measure" of disagreement? Ethical disagreement is not more *propositions-widespread*. That is,

there do not seem to be more disputed ethical propositions in any useful sense. Certainly there

are not more raw numbers of them. A dispute over P translates into a dispute over ~P, ~~P, and

so on *ad infinitum*. But nor does there seem to be more disputed *kinds* of propositions. Even

such banalities as that $1 + 1 = 2$ are denied by fictionalists (Field 1989, Introduction).[4]

Maybe, then, ethical disagreement is more *people-widespread*. That is, maybe there are more

pairs of people who disagree over an ethical proposition. But how do we measure *that*? If we

count raw numbers of pairs, then there turns out to be less disagreement in academic metaphysics

than in genetics, simply because there are many fewer metaphysicians! But if we look at

proportions of those who disagree, then there are two problems. First, most mathematicians

seem to lack a serious view on the question of what axioms are true. Mathematics is focused on

logical truths of the form *if* T, *then* S (where T is a finite conjunction of axioms). However,

among those who have a view on the matter, we "encounter...divergences of viewpoint…that can

easily remind one of religious, schismatic controversy" (Bell and Hellman 2006, 64). Second,

even if most mathematicians do accept standard axioms, *experts on arguments relevant to them*

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proof of S from (a finite subset of) axioms T which is not, say, intuitionstically valid will fail to convince an
intuitionist *even of the conditional* (T → S). See (Clarke-Doane Forthcoming A, Chapter 2).
[4] Of course, fictionalism affords an intuitively philosophical or "second-order" reason to deny that $1 + 1 = 2$. But,
similarly, what non-fictionalist (error theorist) denies that it is sometimes ethically permissible for some people to
stand? I will return to the alleged "first-order"/philosophical distinction shortly.

are clearly conflicted. How could agreement among the ignorant show that our mathematical beliefs have better claim to being *a priori* justified?[5] As D.A. Martin puts it, "[f]or individual mathematicians, acceptance of an axiom is probably often the result of nothing more than knowing that it is a standard axiom" (Martin 1998, 218).

It might be countered that mathematical disagreement is *philosophical*, or "second-order", in a way that ethical disagreement is not. As Russell quipped, the point of philosophy is to take "something so simple as not to seem worth stating" and turns it into "something so paradoxical that no one will believe it" (Russell 1918, 514). Maybe mathematicians find standard axioms *initially credible*. It is just that philosophical arguments lead them astray. But, first, what does it matter that someone finds a principle credible *assuming that they would not if they had expert knowledge?* One may also find it "initially credible" that particles must always have determinate locations. It is hard to see how this could count for much given that they would not if they studied quantum mechanics. Second, the assumption that we can partition "first-order" credibility judgments from "second-order" philosophical reflection is suspect. What would it even mean to have a view as to whether, e.g., Osama bin Laden is ethically blameworthy, *bracketing* whether we have free will, whether God exists, and whether ethical relativism is true?

Perhaps, though, the *a priori* justification that our mathematical beliefs are supposed to enjoy is *easier to explain* than that our ethical beliefs. Unlike our ethical beliefs, perhaps the *a priori*

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[5] This points to a dilemma for arguments from disagreement. Either disagreement among experts on foundations matters or not. If so, then all areas seem to be controversial, because all areas bottom out in controversial philosophy. If not, then it is hard to see why the distribution of opinion should count for much. The first horn has affinities with Frances' "empirical" argument for skepticism. See Frances [2005].

justification of our belief in "basic truths of mathematics [could] be explained...by seeing

mathematics as a system" of so-called *analytic* truths "which are true by virtue of the meanings

of the terms used…" (Singer 1994, 8). But, setting aside worries about the intelligibility of truth

in virtue of meaning (Quine 1951), it is hard to envisage an *argument* that a significant array of

mathematical, but not ethical, truths are so true, given that some theorist actually denies them.

For instance, the Axiom of Foundation, which says that every set occurs at some level of the

cumulative hierarchy, is supposed to be a paradigm of an axiom that is true in virtue of its

meaning. It is just "part of what we mean" by "set" that every set is formed at some stage in a

transfinite generation process *via* the Powerset and Union operations (Boolos 1971, 498,

Shoenfield 1977, 327). But, far from commanding consensus, many take the corresponding

"iterative" conception of set to not even "embody a...*coherent* notion" (Rieger 2011, 17-18, my

emphasis). What, after all, could "formed" and "generation" *mean* when applied to abstract

entities like (pure) sets (Potter 2004, Sec. 3.3)?[6]

Second, even if some mathematical, but no ethical, truths are "true in virtue of meaning", it is

hard to see how this would make the *a priori* justification of our mathematical beliefs easier to

explain than that of our ethical beliefs. If we were worried that some sets fail to be

well-founded, for example, then, under the assumption that it is just "part of the concept of set"

that all sets are, we should just worry *that our concept of set is not satisfied*. (We do not get to

avoid speculative metaphysics by simply enriching our concepts!) Maybe instead of sets, there

are only "shmets" -- where shmets are just like sets except that some of them fail to be

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[6] For more reasons to doubt the "epistemically analyticity" of mathematical axioms, see (Clarke-Doane
Forthcoming, Section 2.7).

well-founded. In general, there is a "translation scheme" between the worry that sets might fail

to be as we take them to be, assuming that no mathematical principles are true in virtue of

meaning, and the worry that there might be only shmets instead of sets, assuming that all such

(conditional) principles are (Clarke-Doane 2014, Section III). To be sure, if we could argue that

every "consistent" concept of set is satisfied, then truth in virtue of meaning might be of

epistemological import. But the view that every consistent concept of set is satisfied is

methodologically indistinguishable from the most uncompromising relativism. So, at least if we

wish to be "objectivist" realists, this caveat is no comfort. I return to the question of objectivity

in Section 3.

2. Indispensability, Confirmation, and Debunking

I have argued that our mathematical beliefs have no better claim to being *a priori* justified than

our ethical beliefs, despite common allegations to the contrary. But, of course, our mathematical

beliefs might still have better claim to being justified. Maybe they have better claim to being

empirically justified. After all, "[i]n explaining the observations that support a physical theory,

scientists typically appeal to mathematical principles [while] one never seems to need to

appeal...to moral principles" (Harman 1977, 9-10). I will call this difference *Harman's Contrast.*

Perhaps Harman's Contrast is misleading. Arguably, the mathematical principles to which

scientists appeal are redundant in a careful regimentation of our scientific commitments (Chen

2017, Chihara 1990, Field 1980 & 1989, Hellman 1989, Arzenius and Dorr 2012). Alternatively,

maybe Harman overstates the case. "An interesting historical question", for example, "is why

vigorous and reasonably widespread moral opposition to slavery arose for the first time in the eighteenth and nineteenth centuries, even though slavery was a very old institution" (Sturgeon 1985, 64). According to Sturgeon, at least, part of the answer appeals to the ethical hypothesis that "chattel slavery…was much worse than previous forms of slavery" (1985, 65).

Even if we take Harman's Contrast at face-value, however, the idea that our belief that P is empirically justified if and only if P is implied by a (true) explanation of some of our observations is suspect in both directions.[7] Consider the *if* direction first. If that were true, then key aspects of scientific methodology would be very mysterious. As Maddy notes, "physicists seem happy to use any mathematics that is convenient and effective, without concern for the mathematical existence assumptions involved…" (1997, 155). But the postulation of new particles and forces is met with empirical scrutiny. Indeed, if our belief that P were empirically justified whenever P was implied by an explanation of some of our observations, then, for any logical truth, P, we would *trivially* be empirically justified in believing that P -- simply because P is implied by everything. Meanwhile, if the other direction of the above biconditional were true, then our belief that P could never be empirically justified if P was epiphenomenal. For example, if it happens to be the case that, unbeknownst to us, facts about pieces of paper are best dispensed with in a regimented psychophysics (in favor, perhaps, of facts about particles arranged "paper-wise"), then your belief that there is a piece of paper in front of you would not

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[7] I will assume that explanation is factive in what follows, so will not continue to make the qualification "true". An additional problem that I do not have room to discuss is that, even if it were assumed that our belief that P is empirically justified if P is implied by some explanation of some of our observations, this would not suffice to show that our mathematical beliefs generally are. Certainly, there is little prospect that higher set-theoretic principles will ever be appealed to. From an empirical scientific point of view, at least some mathematics must be "recreation and without ontological rights" (Quine 1986, 400). See Clarke-Doane (Forthcoming, Section 3.8).

now count as empirically justified. But, even if your belief is vulnerable to *undermining* by knowledge of this explanatory dispensability, the suggestion that your belief that there is a piece of paper in front of you is not empirically justified *absent that knowledge* is difficult to swallow.

Perhaps, then, the epistemological significance Harman's Contrast should be framed in terms of undermining. If ethical truths are dispensable, even to any explanation of our (token) ethical beliefs, then maybe knowledge that this is so undermines whatever justification our ethical beliefs enjoyed -- whether *a priori* or empirical (Joyce 2008, 2016). In other words, maybe our ethical beliefs are vulnerable to a Genealogical Debunking Argument. By contrast, while there may be an empirically confirmed explanation of our (token) mathematical beliefs as well, arguably "the fact that we have such a genealogical explanation" does not "demonstrate that we are unjustified in" believing the likes of 1 + 1 = 2. For "we have no grasp of how such an "explanation could work "independent of assuming" that 1 + 1 really does equal 2 (Joyce 2007, 182).[8]

How might such undermining work? It is sometimes suggested that, if Harman's Contrast is true, then "[e]volution is not a truth-tracking process with respect to evaluative truth" (Kahane 2011, 111), so that "most of our [ethical] judgements are off track due to the distorting pressure of [causal] forces"(Street 2006, 109). But absent an independent account of "tracking" or "off track", this gloss is not informative. Indeed, it may be just another way of *saying* that no explanation of our ethical beliefs implies their contents. Joyce suggests that "the intuition at the

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[8] For other statements to this effect, see Crisp (2006, 17), Gibbard (2003, Ch. 13), Sinnott-Armstrong (2006, 46), Sosa (2002), Street (2006, 160, fn. 35), and Woods (2018). (I say "arguably", because Clarke-Doane argues that we can explain the usefulness of our arithmetic beliefs without assuming their truth in Clarke-Doane (2012, Sec. III).)

heart of truth-tracking is that beliefs may or may not be *sensitive* to the facts which they represent" (Joyce 2016, 147, emphasis in original). But if Joyce means by "sensitive" what epistemologists mean, then this is incorrect (if he does not mean this, then it is unclear what he means). Our belief that P is sensitive when, had it been that ~P, we would not still have believed that P (had we used the method that we actually used to determine whether P). Harman's Contrast gives us no reason to doubt that our ethical beliefs satisfy this condition (Sturgeon 1985). Consider any atomic ethical truth, A is M, where A names a particular person, action, or event and M ascribes an ethical property. Then had A not been M, A would have been different in non-ethical respects—since worlds in which the "explanatorily basic" truths which fix the supervenience of the ethical on the non-ethical are more distant from the actual world than worlds in which those truths are the same and A is not M, whatever their modal strength. But had A been different in non-ethical respects, our ethical beliefs would have reflected the difference. To tweak an example of Harman, had Joe been petting a cat rather than pouring gasoline on it, we would not have judged that the Joe was doing something ethically wrong.

To be sure, if "counterpossibles" -- i.e., counterfactuals with impossible antecedents -- are not trivially true, then one might still argue that at least our explanatorily basic ethical beliefs are insensitive. But, first, what matters for the argument above is that *Harman's Contrast gives us reason to believe this*. Second, this would be a special case of an apparently pervasive fact -- namely, that our belief that P is insensitive, if not trivially sensitive, *whenever P would be*

necessary, if true. In particular, as Field writes, "we would have had exactly the same mathematical… beliefs even if the mathematical…truths were different…" (Field 2005, 81).[9]

Maybe, then, Harman's Contrast gives us reason to believe that our ethical, as opposed to mathematical, beliefs are "off track" in the sense that "we could easily have arrived at mostly false" ones (using the method that we actually used to form ours) (Braddock *et al.*, 2012). In epistemological parlance, maybe Harman's Contrast gives us reason to doubt that our ethical, but not mathematical, beliefs are *safe*. But this is also incorrect. The whole point of arguments like Joyce's is commonly taken to be that we were "bound" to have the ethical beliefs that we do have, "for reasons that have nothing to do with their truth". As Street writes, "among our most deeply and widely held judgments, we observe many...with exactly the sort of content one would expect if the content of our evaluative judgments had been heavily influenced by selective pressures" (2006, 116). But, if we could not have easily had different ethical beliefs, then, so long as their contents could not have easily been false, we could not have easily had *false* ethical beliefs. Of course, this argument does not show that our ethical beliefs *are* safe. (I will argue for the opposite conclusion shortly.) It shows that Harman's Contrast gives us no reason to doubt that they are.

Street (2006) suggests that Harman's Contrast gives us reason to believe that that our moral beliefs are "off track" in the sense that it would be a *coincidence* if they were true. But what

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[9] Perhaps the upshot is just that all of our beliefs in necessary truths are undermined? Such a view would seem to "explode" (Clarke-Doane 2016, 2.4). If our belief that atoms arranged paper-wise compose a piece of paper is undermined, then how can we rationally maintain belief that we are looking at a piece of paper? Similarly, if our belief that *modus ponens* is valid is undermined, then how can we rationally maintain belief that Q, given that P and (P-->Q)? One *could* give up the requisite closure principles. But this would be a radical concession.

does "coincidence" mean, if not something to do with sensitivity or safety? Harman's Contrast

does not gives us reason to doubt that the *probability* that our ethical beliefs are true is high,

contra Street (2016). If the probability at issue is epistemic, then the suggestion assumes the

conclusion that the it is supposed to establish—that our ethical beliefs are not justified. But for

any (explanatorily basic) ethical truth, P, the *objective* probability of P is presumably 1, given

that such truths would be necessary. (If we say that only truths which are necessary in a more

demanding sense -- e.g., "conceptually necessary" -- get probability 1, then, logicism

notwithstanding, it is objectively improbable that there are infinitely-many prime numbers as

well.) Meanwhile, it may be that Pr(we believe that P) $\approx$ 1, because the probability of our having

the ethical beliefs that we do is high. But, then, Pr(P & we believe that P) $\approx$ 1, by the probability

calculus. Since, (P & we believe that P) implies (our belief that P is true), Pr(our belief that P is

true) may approximate 1 too.

Nor would it help to gesture at a lack of "connection" between our ethical beliefs and the truths.[10]

If this means that their contents are not implied by any explanation of our having them, then we

are back to (an application of) Harman's Contrast, not an explanation of how it could undermine

our ethical beliefs. If it means something else, then we need to know why, epistemologically, we

should care. Unless there being a lack of "connection" between our beliefs and the truths is

evidence for lack of modal security or probability, giving up our beliefs on account of it seems to

be like giving them up because they are not polite. The truth-seekers among us would seem

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[10] Talk of a "connection" between our ethical beliefs and the the truths may have relevance to the challenge of explaining the *determinacy of the contents* of those beliefs. However, Genealogical Debunking Arguments *assume* that our ethical beliefs have determinate contents, and purport to *undermine* our belief in those contents. Indeed, the less determinacy our ethical beliefs exhibit, the fewer (determinate) facts there are to correlate with our beliefs.

better served by opting out of such epistemic etiquette. (All sides agree that Harman's Contrast does not *rebut* our ethical beliefs, or give us direct evidence for the negations of their contents.)

Why have so many taken Harman's Contrast (or something like it) to undermine our ethical beliefs? Perhaps because they have inducted from a special case. That P is not implied by any explanation of our (token) belief that P is evidence for lack of modal security and probability *when P would be causally efficacious if it obtained*. The problem with Genealogical Debunking Arguments is that these things are independent when P would be causally inert, as debunkers take ethical truths to be. (If they took ethical truths to be causally efficacious, then it would not be plausible that any explanation of our ethical beliefs fails to imply them.) In general, our belief that P may be insensitive, unsafe, and improbable, though P is implied by every explanation at all, and it may be sensitive, safe, and probable, though P is implied by no scientific explanation (Clarke-Doane 2015). Explanatory connection and epistemological security are different things.

3. Pluralism and the New Problem of Safety

I have argued that our mathematical beliefs have no better claim to being (defeasibly) *a priori* or empirically justified than our ethical beliefs. It is also incorrect that our ethical beliefs are peculiarly vulnerable to genealogical debunking. But there surely *is* an epistemological mystery surrounding ethical knowledge, realistically construed. How do we reliably detect the independent ethical facts? As Mackie worried, knowledge of such facts would seem to require "some special faculty of perception or intuition, utterly different from our ordinary ways of

knowing everything else" (1977, 38). Debunkers' mistake was simply to think that this problem

has anything to do with whether any explanation of our moral beliefs implies their contents.

This mystery, however, is just the analog to Benacerraf's famous worry that, if mathematical

realism is true, then "the connection between the truth conditions for the statements of

[mathematics] and any...events connected with...people… cannot be made out" (1973, 673).

More carefully, the Benacerraf Problem "is to...explain how our beliefs about [mathematical]

entities can so well reflect the facts about them" (Field 1989, 26). "*[I]f it appears in principle

impossible to explain this*, then that tends to *undermine* [our mathematical beliefs, realistically

construed], *despite* whatever reason we might have for" them [Field 1989, 26, emphasis in

original].

This is still not precise. The question remains: what could "explaining the reliability" of our

beliefs require such that (a) it appears impossible to explain the reliability of our ethical and

mathematical beliefs, realistically construed, and (b) if it appears this way, then that undermines

them, so construed (Clarke-Doane 2016)? Benacerraf (1973) suggests that it requires

establishing a *causal relation* between our beliefs and the truths. But then (b) would be false.

Not even the originator of the theory of knowledge to which Benacerraf appealed maintained that

the theory applies to our mathematical beliefs (Goldman 1967, 357).[11] Field suggests that "[t]he

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[11] Relatedly, "explaining the reliability" of our (token) beliefs might require showing that their truth is implied by some explanation of them. But that would make (b) implausible because it would transform the Benacerraf Problem into a Genealogical Debunking Argument -- and we have already seen that those are doubtful. It would also make (a) trivially false in the mathematical case, if mathematics is indispensable to empirical science in the way that it is widely supposed to be. As Steiner writes, "suppose that we believe...the axioms...of number theory or analysis…. [S]omething is causally responsible for our belief, and there exists a theory — actual or possible, known or unknown

Benacerraf problem…arise[s] from the thought that we would have had exactly the same mathematical… beliefs even if the mathematical…truths were different...and this undermines those beliefs" (2005, 81). And one might similarly object that "[w]hatever form the moral facts...take, one would have the very same moral...beliefs because such things are causally determined, and the causal order has not changed" (Bedke 2009, 196). However, (b) is false on this reading for much the reason that Joyce's sensitivity argument fails (see, again, Section 2).

A clue to the proper reading of "explain the reliability" comes from reflection on what is widely taken to be the only version of mathematical realism that affords an answer to it -- what I will call *pluralism*. Field himself concedes that pluralists "solve the problem by articulating views on which though mathematical objects are mind-independent, any view we had of them would have been correct" (2005, 78). At first approximation, mathematical pluralism says that any (first-order) consistent mathematical theory is true of the entities of which it is about.[12]

What epistemological problem does pluralism solve? It does not solve the problem of showing that there is a causal, explanatory, or even logical connection between our beliefs and the truths. Nor does it show that our mathematical beliefs counterfactually depend on the truths. Given a "cooperative" metasemantics, pluralism solves the problem of showing that had our beliefs been systematically different they would not have been false. But (b) is false of this problem. Had we had perceptual beliefs as of ghosts, say, we would have been deluded. That does not undermine

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— which can satisfactorily explain our belief in causal style. This theory, like all others, *will contain the axioms of number theory and analysis*" (1973, 61, italics in original).

[12] The view must be moderated if we are not to be pluralists about pluralism. A more tenable view would be that any Pi_1 sound theory is true of its intended subject. See Clarke-Doane (Forthcoming A, Section 6.2) and (Forthcoming C, Section 2).

those beliefs. We only get a problem that satisfies (b) if we add that we could have *easily* had

systematically different beliefs. Given that pluralism is false of the objects of perception -- i.e.,

that there is one world to which our perceptions answer -- our perceptual beliefs would have

been false had they been systematically different. So, if this scenario could have easily

transpired, those beliefs are not *safe*. The problem that mathematical pluralism solves, and

which may satisfy (a) and (b), is the problem of showing that our mathematical beliefs are safe.[13]

But while mathematical pluralism seems promising, there is something transparently

unsatisfactory about ethical pluralism. At first pass: ethical theories are supposed to tell us what

to do, and ethical pluralism leaves us clueless. While we can *believe* both deontological and

utilitarian ethical-like theories (believe them true "of" different properties) we must either kill

the one to save the five or not! Given that we ought_Utilitarian to kill the one, but ought_Deontological

not, the *practical* question remains: whether to do what we ought_Utilitarian or ought_Deontological to do.

It is widely assumed that such considerations just show that, unlike mathematical realists, ethical

realists should be "objectivists". This conclusion would be of epistemological import. It would

mean that mathematical realists have an answer to Benacerraf's worry that ethical realists lack.[14]

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[13] I say "may" because there is a case to be made that (a) and (b) are not mutually satisfiable (Clarke-Doane 2016).
[14] Arguments for ethical pluralism (even if not by that name) at both the metaphysical and metasemantic levels
include the Cornell Realism of Boyd [1988, 225f], the functionalism of Jackson and Pettit [1995, 25], and the
neo-Carnapianism of Scanlon [2014, 27]. Note that while the first two views are supposed to be "naturalist", the last
is not. On the former, see Horgan and Timmons [1992, 460].

But, even supposing that ethical objectivism makes sense,[15] the problem with ethical pluralism

can be turned into a problem for ethical realism -- pluralist or not. We can frame it in terms of

the logical law of weakening. This says that if a conclusion, C, follows from premise A, then C

certainly follows from premises A and B. Now suppose that we have no doubt that we ought to

kill the one to save the five in our circumstance. This cannot settle the practical question of

whether to, by weakening. For we can stipulatively introduce an ought-like concept, ought*,

according to which we ought* not kill the one to save the five.   It does not matter whether

ought* is satisfied. What matters is that, *under the assumption* that we ought to kill the one, and

that we ought* not, the practical question remains whether to do what we ought, or ought*, to do.

Since the premise that we ought to kill the one does not settle the question of whether to kill the

one *in tandem with* the premise that we ought* not kill the one, it cannot settle the question of

whether to kill the one on its own. However, if this is so, then settling the facts -- *even the*

ethical facts -- fails to settle the practical questions at the center of our ethical lives

(Clarke-Doane 2015, Forthcoming A, Ch. 6, and Forthcoming B, and Eklund Manuscript).

This argument is a kind of radicalization of Moore's Open Question Argument. Moore (1903,

Sec. 13) can be taken to show that an agent may know that A is F, for any *descriptive* property,

F, while failing to "endorse" A in the sense that is characteristic of practical deliberation. The

above argument would seem to show that an agent may know that A is F, for any property, F,

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[15] This is questionable because, unlike mathematical theories, ethical ones at most "postulate" *properties*. They are about -- i.e., name or (first-order) quantify over -- uncontroversial inhabitants of the world, like people, actions, and events. For example, although "Hitler is wicked" predicates the property of wickedness, it only refers to a man. Properties, in the sense presupposed by such sentences, come cheaply on a wide variety of conceptions. And while one might protest that the pluralist metasemantics is less plausible in the ethical case than in the mathematical, *metaphysically*, it is hard to see how one could deny that there are ethical-like properties, if there are ethical ones.

descriptive *or ethical*, while failing to endorse A. This is because she may always wonder

whether to do what is F, rather than F*, for some alternative ethical-like concept, F*.

Note two things about this argument. First, the conclusion is not that we might judge that we

ethically ought to, say, kill the one to save the five while failing to be *motivated* to. That is

something that any "motivation externalist" would allow (Brink 1986). If the argument works, it

shows that *our deliberation as to whether* to kill the one is not completed even once we conclude

that we ought to, that it would be good, that it is the thing-to-do, and so on, for any ethical-like

predicates you like. Second, if the argument works, it does not just show that settling the facts

realistically construed fails to settle practical questions. It shows that settling them *factually* (or

"cognitively") construed does. Consider, for example, a Korsgaardian constructivist who takes

the question of whether we ought to kill the one to save the five to amount, roughly, to the

factual question of whether this follows from our "practical point of view". Just as we can

wonder whether to do what we ethically ought, as opposed to ought*, to do, realistically

construed, we can wonder whether to do what follows from our practical, rather than practical*,

point of view. We can wonder, as Enoch (2006) puts it, whether to be an agent or a shmagent.

Of course, even if ethical facts *per se* fail to settle deliberation, it might still be that normative

facts settle this. Indeed, many philosophers deny that ethics is overriding in that, sometimes, we

all-things-considered ought to do what we ethically ought not do (Das [Forthcoming]). But if the

argument works, it works for *any* normative properties, whether ethical, epistemic, prudential, or

all-things-considered. Even if we ought all-things-considered kill the one, we ought* not, and

the question remains whether to do what we all-things-considered ought, or ought*, to do.

The upshot of the argument from weakening is that knowledge of the facts -- even the normative

facts -- fails to settle the practical questions at the center of our normative lives. Of course,

non-cognitivists like Gibbard [2003] could be right that, ordinarily, talk of normative "facts" is

just a way of expressing deliberative conclusions. Whether this is so is a question of natural

language semantics. What is important is that ethical facts *as the realist and, more generally,*

cognitivist, conceives of them are practically anemic. This means that even if ethical pluralism

affords a resolution to the Benacerraf Problem for ethical realism, understood as the problem of

showing that our ethical beliefs are safe (as mathematical pluralism seems to), there is a new

problem of safety that ethical pluralism fails to resolve (and which does not arise in the

mathematical case).[16] Where we might have worried that we could have easily had different, and

so false, ethical beliefs, we can now worry that we could have easily had ethical*, rather than

ethical, beliefs. Had we, our ethical-like beliefs would not have been *false* (they would have

been true of the ethical* facts). But we would have done what we would say in the vulgar we

ought not have (insofar as were were rational*). We would have been using the "wrong"

normative, or perhaps normative-like, concepts (Eklund 2017). But this is *not* to say that we

would have been using concepts which fail to be "metaphysically privileged", contra McPherson

and Enoch (2017). Metaphysical privilege, if it has ramifications for *good* theorizing, is itself a

normative concept, and the argument from weakening just re-applies. Even if our ethical-like

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[16] Of course, even given that, e.g., the Axiom of Choice is true of the sets and false of the shmets, we can wonder
whether to theorize in terms of sets or shmets. But that is itself a practical question -- not one of (pure) set theory.

concepts would have failed to be metaphysically privileged, they would have been privileged*

(Dasgupta 2017), and the practical question remains whether to theorize in terms of privileged or

privileged* concepts. The new problem of safety is not *epistemological*. It is practical.[17]

Conclusions

I have discussed analogies and disanalogies between ethical knowledge and mathematical

knowledge, realistically construed. I have argued that our mathematical beliefs have no better

claim to being *a priori* or empirically justified than our ethical beliefs. Nor are our ethical

beliefs especially vulnerable to undermining. In general, if one is an ethical anti-realist on the

basis of epistemological considerations, then one ought to be a mathematical anti-realist too.

And, yet, ethical realism and mathematical realism do not stand or fall together. Ethical

questions, insofar as they are practical, cannot fail to be objective in a way that factual questions

can. This means that even if ethical pluralism afforded a resolution to the epistemological

problem of safety, there is a new problem of safety that ethical pluralism fails to resolve.

It also means that the concepts of realism and objectivity, which are widely identified, are

actually in tension. If mathematical realism is true, and we can answer the Benacerraf Problem,

then mathematics is not objective. Just as Euclidean and hyperbolic geometries are equally true,

albeit true of different structures, the mathematical pluralist claims that "foundational" theories,

like (pure) set theories, are too.[18] It is *as though* the most uncompromising mathematical

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[17] For more on these issues, see Clarke-Doane (2015), (Forthcoming A), and (Forthcoming B).
[18] I am referring to the pure mathematical theories, Euclidean and hyperbolic geometry. Obviously, not all geometries are true of spacetime.

relativism were true. Conversely, ethical questions, insofar as they are practical, are objective in the sense that, e.g., the question of whether the Parallel Postulate is true is not. While we can *believe* whatever theories we like, we must either kill the one, or not. Pluralism is not an option in the practical realm. But if practical questions answered to the facts, then it would be. We ought to kill the one, we ought* not, and that is all there is to it. There would be no further question to resolve. Since there would be, practical questions cannot be questions of fact.

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