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Debunking and Indispensability

- *Harman*: "In explaining the observations that support a physical theory, scientists [must] appeal to mathematical principles (*The Indispensability Thesis*). On the other hand, one never seems to need to appeal in this way to moral principles (*Harman's Objection*) [1977, 10]."
    - An "observation" is any "immediate judgment made in response to the situation without any conscious reasoning [1977, 208]." Occurrent mathematical and moral beliefs may qualify.
- *Question*: What is the epistemological relevance of this contrast, if genuine?

Relevance to the Justificatory Challenge

- *Harman*: "Observation plays a part in [mathematics] it does not…play in ethics, because [mathematical] principles can be justified…by their role in explaining observations [1977, 10]."
    - *Interpretation*: The Indispensability Thesis shows that the mathematical realist can answer the *justificatory challenge* – the challenge to *justify* our mathematical beliefs in a dialectically effective way – and Harman's Objection blocks an analogous argument in the moral case.
        - *Putnam*: "[Q]uantification over mathematical entities is indispensable for [empirical] science… therefore we should accept such quantification; but this commits us to...the existence of the mathematical entities [that satisfy our theories, realistically construed]. This type of argument stems…from Quine, who has for years stressed… the…dishonesty of denying the existence of what one daily presupposes [1971, 347].

Relevance to the Reliability Challenge

- *Street*: "[T]he realist must hold that an astonishing [inexplicable] coincidence took place – claiming that as a matter of…luck, [causal] pressures affected our…attitudes in such a way that they just happened to land on…the true…views….[T]o explain why human beings…make the normative judgments that we do, we do not need to suppose that those judgments are *true* [2008, 208 – 209]."
    - *Interpretation*: Harman's Objection shows that the moral realist cannot answer the *reliability challenge* – the challenge to *explain the reliability* of our moral beliefs – and the Indispensability Thesis blocks analogous reasoning in the mathematical case.

Genealogical Debunking Arguments

- *Joyce*: "[A]ny epistemological benefit-of-the-doubt that might have been extended to moral beliefs…will be neutralized by the availability of an empirically confirmed moral genealogy that nowhere…presupposes their truth [Joyce 2008, 216]."
    - *Interpretation*: Harman's Objection *undermines* our moral beliefs (realistically construed) by showing that the reliability challenge for moral realism is unanswerable.
        - *Principle*: "[O]ur belief in a theory [is] undermined if…it would be a huge coincidence if what we believed about its subject matter were correct [Field 2005, 77]."
- *Debunkers' Assumption*: In order to relevantly "explain the reliability" of our beliefs of a kind, D, it is at least necessary to show that their contents figure into their best (genealogical) explanation.

Against Sufficiency: The Benacerraf Problem

- By the (relevant precisification of the) Indispensability Thesis, the contents of our mathematical beliefs figure into their best explanation.
    - *Steiner*: "[S]uppose that we believe…the axioms of analysis or of number theory…. [S]omething is causally responsible for our belief, and that there exists a theory – actual or possible, known or unknown – which can…explain our belief in causal style. This theory, like all others, *will contain the axioms of number theory and analysis* [1973, 61]."
- But one important upshot of Benacerraf [1973] seems to be that the reliability challenge for mathematical realism appears to be unanswerable *even so*.
    - *Field*: "[W]e can formulate [Benacerraf's] challenge so as to make indispensability considerations of questionable relevance to answering it….We start out by assuming the existence of mathematical entities that obey the standard mathematical theories; we grant also that there may be positive reasons for believing in those entities. These positive reasons might…be that the postulation of these entities appears to be indispensable….But Benacerraf's challenge…is to…explain how our beliefs about these remote entities can so well reflect the facts about them....*[I]f it appears in principle impossible to explain this*, then that tends to *undermine* the belief in mathematical entities, *despite* whatever reason we might have for believing in them [1989, 26]."
    - *Note*: Benacerraf's original challenge depended on a causal theory of knowledge that "almost no one believes…anymore" [Field, 1989, p. 26]. But Field's does not.
- Some advocates of the Indispensability Thesis respond that that the reliability of our mathematical beliefs is no more mysterious than the reliability of theoretical empirical ones (about, e.g., electrons).

- *Quine*: "Objects at the atomic level and beyond are posited…ultimately the laws of experience, simpler….Moreover, the abstract entities which are the substance of mathematics…are another posit in the same spirit. Epistemologically these are myths on the same footing with physical objects…neither better nor worse except for differences in the degree to which they expedite our dealings with sense experiences [Quine 1951, 43]."

- *Colvyan*: "[L]et's take a…charitable reading of the Field version of the [Benacerraf] challenge, according to which the challenge is to explain the reliability of our systems of beliefs….Once the challenge is put this way, we see that Quine has…answered it: we justify a system of beliefs by testing it against bodies of empirical evidence [2007, 111]."

- But this confuses the justificatory and the reliability challenges. Showing that the contents of our mathematical beliefs figure into the best explanation of our observations helps to *justify* them in a dialectically effective way. But it does not illuminate how they reliability align with the truths.
- *Upshot*: In order to relevantly explain the reliability of our D-beliefs it is *not sufficient* to show that their contents figure into their best explanation. Why do debunkers assume that it is necessary?

Answer 1: Sensitivity

- *Joyce*: "Suppose that the actual world contains…the kind [of requirements] that would…render moral discourse true. In such a world humans will…make moral judgments…for natural selection will make it so. Now imagine…that the actual world contains no such requirements….In such a world, humans will *still*...make these judgments…for natural selection will make it so….[D]oes the truth of moral judgments…play a role in their usefulness?... [T]he answer is "No" [2007, 163]."

    - *Sensitivity 1*: To answer the reliability challenge for D-realism, it is necessary to block the worry that *had the D-truths been different, our D-beliefs would have been false*, and this requires showing that the contents of our D-beliefs figure into their best explanation.
        - *Problem*: If the explanatorily basic moral truths – the truths which fix the conditions under which a moral property is instantiated – are "metaphysically" necessary, then our corresponding beliefs are vacuously sensitive with respect to metaphysically possible worlds *whether or not* their contents figure into their best explanation.
    - *Sensitivity 2*: …it is necessary to block the worry that *had – "as a purely conceptual matter" – the D-truths been different, our D-beliefs would have been false* [Street 2008, 209], and this requires showing that the contents of our D-beliefs figure into their best explanation.
        - *Problem*: We cannot show that our beliefs of a kind, D, are sensitive in this sense *even given* that we can show that their contents figure into their best explanation.

- *Field*: "[W]e would have had…the same mathematical…beliefs even if [as a purely conceptual matter] the mathematical…facts were different [2005, 81]."

Answer 2: Safety

- *Ruse*: "Had evolution taken us down another path, we might well think moral that which we now find horrific, and conversely. This is not…acceptable to the [moral realist] [1986 254]."
    - *Safety 1*: To answer the reliability challenge for D-realism, it is necessary to block the worry that *had our (explanatorily basic) D-beliefs been different, they would have been false*, and this requires showing that the contents of our D-beliefs figure into their best explanation.
        - *Problem*: This counterfactual is a trivial consequence of D-realism.
- *Sinnott-Armstrong et al*: "[D]ifferent instantiations of the process of cultural group selection have produced divergent normative systems, which nonetheless solve the same design-problem: namely, that of getting human societies to function as adaptive corporate units. In this way, one and the same process type may, through its various instantiations, easily result in divergent moral systems [2012]."
    - *Safety 2*: To answer the reliability challenge for D-realism, it is necessary to block the worry that *we might have easily had different, and thereby false, (explanatorily basic) D-beliefs*, and this requires showing that the contents of our D-beliefs figure into their best explanation.
        - *Problem 1*: To show this it is not necessary to show that the contents of our D-beliefs figure into their best evolutionary explanation *as debunking arguments illustrate*.
        - *Problem 2*: Showing this is also not sufficient, as the mathematical case again shows.
            - *Field*: "[Radical pluralists solve] the [Benacerraf] problem by articulating views on which though mathematical objects are mind independent, any view we had had of them would have been correct….[T]hese views allow for…knowledge in mathematics, and unlike more standard [realist] views, they seem to give an intelligible explanation of it [2005, 78]."

Against Necessity: Modal Security

- *Debunkers' Assumption* (top of p. 2) is not just unsupported: it is dubiously coherent.
    - *Modal Security*: Information, E, cannot undermine our beliefs of a kind, D, without giving us some reason to believe that our D-beliefs are not both sensitive and safe.
        - We may be able to show that our moral beliefs are sensitive and safe *even given* Harman's Objection. Hence, if Modal Security is true, Harman's Objection does not

undermine. But if *Debunkers' Assumption* is true, then it does. So, if Modal Security is true (which seems to me plausible, but uncertain), *Debunkers' Assumption* is false.

- *Objection 1*: We need a distinction between beliefs which are sensitive and safe "for reasons that have nothing to do with their truth" and beliefs which are for reasons that do. Debunking arguments show that our moral beliefs are of the former sort, and *this* undermines them, contra Modal Security.
    - *Response 1*: Modal Security allows for such a distinction. It denies that learning that our beliefs are sensitive and safe "for reasons that have nothing to do with their truth" could undermine them. Those who disagree inherit a challenge: explain how E could obligate us to give up beliefs *without threatening our verdict that they were (all but) bound to be true*.
    - *Response 2*: What does the quoted locution mean anyway? Not something to do with sensitivity or safety. Not something to do with indispensability. And not something to do with a causal link between their subject matter and us, since this was Benacerraf's challenge.
        - *Note*: If it is cashed out in terms of hyperintensional ideology like constitution or grounding, then it would not seem to serve debunkers' dialectical purposes *a fortiori*.
- *Objection 2*: Modal Security makes it too easy to answer the reliability challenge. If we are granted the necessity of our (explanatorily basic) astrological beliefs and we can argue that we could not have easily had different such beliefs, then, by Modal Security, we can "explain their reliability"!
    - *Response*: We should not be granted these things. Debunking arguments overreach.

- *Upshot*: The positive reasons to believe *Debunkers' Assumption* (top of p. 2) are poor. Moreover, Modal Security, which is at least plausible, implies that *Debunkers' Assumption* is false. Hence, contra debunkers, in order to relevantly explain the reliability of our D-beliefs, it appears to be *neither sufficient nor necessary* to show that their contents figure into their best explanation.

Justification versus Explanation

- Why have so many philosophers found debunking arguments to be plausible? I suggest that, like some advocates of the Indispensability Thesis, they have confused the justificatory and the reliability challenges for realism about an area.
    - *Joyce*: "There is some evidence that natural selection has provided humans with an inbuilt faculty for simple arithmetic….[L]et's interpret this as implying that our belief that 1 + 1 = 2 is innate. This…is an eternal and necessary truth, and thus by "hard-wiring" such a belief into our brains natural selection takes no risks – it is not as if the environment could suddenly

change such that 1 + 1 would equal 3. So does the fact that we have such a genealogical explanation of our simple mathematical beliefs serve to demonstrate that we are unjustified in holding these beliefs? Surely not, for we have no grasp of how this belief might have been selected for…independent of its truth….The truth of "1 + 1 = 2" is a background assumption to any reasonable hypothesis of how this belief might have come to be innate [2006, 182]."

- The claim that "[t]he truth of "1 + 1 = 2" is a background assumption to any reasonable hypothesis of how this belief might have come to be innate" shows that the contents of our mathematical beliefs figure into the best explanation of our observations (in Harman's sense). It, therefore, helps to answer the *justificatory challenge* for mathematical realism.
  - *But we may be able to show that the contents of our D-beliefs figure into their best explanation while failing to have any idea how they reliably align with the D-truths*.
  - Hence, the Indispensability Thesis fails to answer Benacerraf's epistemological challenge, understood as the reliability challenge for mathematical realism.
- The claim that "our belief that 1 + 1 = 2 is innate" and that its content "is an eternal and necessary truth" helps to show that our mathematical beliefs are safe and sensitive. By Modal Security, this helps to answer the *reliability challenge* for mathematical realism.
  - *But we may be able to show that our D-beliefs are sensitive and safe but unable to show that their contents figure into the best explanation of any of our observations*.
  - Hence, if Modal Security is true, Harman's Objection fails to undermine our moral beliefs by showing that the reliability challenge for moral realism is unanswerable.

Conclusion

- The Indispensability Thesis and the reliability challenge for mathematical realism appear to be independent, as do Harman's Objection and the reliability challenge for moral realism. It follows that indispensability considerations cannot answer the Benacerraf-Field epistemological challenge, and, if Modal Security is true, that Genealogical Debunking Arguments are fallacious.
- The alternative view apparently arises from a confusion of the justificatory and reliability challenges for realism – if it does not arise from the false assumption that showing that the contents of our beliefs figure into their best explanation helps to show that they are relevantly sensitive or safe.
- *Note*: It does *not* follow that genealogical considerations are irrelevant to the reliability challenge. The point is rather that whether such considerations aggravate or alleviate the reliability challenge for D-realism appears to be independent of whether they assume the contents of our D-beliefs.

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