

What is Logical Monism?

- *Logical monism*: '[T]he view that there is only one correct logic or, alternatively...only one genuine consequence relation, only one right answer to the question on whether and why a given argument is valid, only one collection of valid inferences (or of logical truths), or only one right way of reasoning [Estrada-González 2011, 111].'
 - *Note*: This is strictly *meta*-logical monism. However, dispute over metalogic is supposed to *translate* into dispute over what (non-meta-logical) claims are true.
 - *Note*: The monism-pluralism dispute cross-cuts the realism-antirealism dispute.
- *Question*: What is logical monism, more exactly?

I. The Semantic Answer

- *Zach*: 'The question of whether [some] logic is the correct logic is the question of whether the implication relation so defined agrees with the pre-theoretic notion of implication between statements [2018, 2080].' The logical pluralist holds that 'natural language expressions like 'follows from' are unsettled, vague, or ambiguous, and may ... be made...precise...in more than one way [Russell, 2021]', while the monist denies this.
- *Problem*: This answer robs logical monism of metaphysical and methodological interest.
 - The monist and pluralist agree about the non-semantic world. They may even agree on method. They may both advocate, say, quantum logic even though the monist claims that we uniquely pick out classical consequence with 'implies'.

II. The Logical Answer (Collapse)

- *Priest*: 'Even if modes of legitimate inference do vary from domain to domain, there must be a common core determined by the...intersection of all these....Despite the fact that there are relatively independent domains about which we reason, *given any two domains, it is always possible that we may be required to reason across domains* [2006, 174f, italics added].' Alternatively, 'suppose there really are two equally good accounts of deductive validity, K_1 and K_2 , that β follows from α according to K_1 but not K_2 , and we know that α is true.... It follows K_1 -ly that β is true, but not K_2 -ly. Should we, or should we not conclude that β is true? The answer seems clear: K_1 trumps K_2 K_2 does not tell us that β is false; it simply fails to tell us whether it is true.... K_1 and K_2 are not equally

good. K_1 answers a crucial question which K_2 does not. [This] question is the central question of logic [Read 2006, 194–195].’ So, logical pluralism is the view that there is no weakest, or strongest, logic, respectively, while monism is the view that there is one.

- *Compare*: ‘The models postulated by [the set-theoretic pluralist] determine a canonical maximal set-theoretic structure, the amalgamation. If one takes those models seriously, then one should regard this...as the true universe of sets [Martin 2001, 14].’
- *Initial Problem*: What counts as a logic such that the true logic does not devolve into the trivial logic, according to which nothing follows from anything, or the ‘Spinoza logic’?
- *Deeper Problem*: What follows from what *in a logic* depends on the logic one uses to check. So, absent *another* reason to privilege a *metallogic*, this is monism in name only.
 - *Compare*: Whether a concept of set is broadest is metatheory-dependent.

III. The Scientific Answer

- *Putnam*: ‘It makes as much sense to speak of ‘physical logic’ as of ‘physical geometry’. We live in a world with a [quantum] logic...[1968, 226].’ So, the logical pluralist says that there is no one true logic in something like the sense that Reichenbach said that there is no one true physical geometry, while the logical monist says that there is such a logic.
- *Problem*: The claim that the physical geometry is non-Euclidean has clear physical content: initially parallel geodesics (e.g., light rays) do not stay the same distance apart. However, there is no apparent physical content of the key claim of quantum logic, that the law, $P \ \& \ (Q \vee R) \longleftrightarrow [(P \ \& \ Q) \vee (P \ \& \ R)]$, is invalid. There is content to the claim that it is *false* (under some interpretations of the variables). But validity is not just truth!
- *Rejoinder* (Priest): While ‘[i]t is now an uncontentious fact that there are many pure geometries: Euclidean, Riemannian, spherical, etc....The question of rivalry occurs when one applies geometries for some purpose [like modeling spacetime]....[T]he canonical application [of (meta)logic concerns] the analysis of reasoning....The central purpose of an analysis of reasoning is to determine what follows from what...[2006, 196-197].’
- *Response*: This just returns us to the semantic answer. There are all the different consequence relations ‘out there’, much as there are the different *pure* geometries. The only factual question is to which of them terms like ‘follows from’ happen to correspond. This is *not* like the scientific case. Contra Reichenbach, there is *one* physical geometry!
- *Clarification*: There remains the methodological question of which consequence relation to appeal to for a purpose – including the canonical purpose (if there is one). But that is no more a *scientific* question than that of what telescope to use to study Sagittarius A*.

IV. The Metaphysical Answer

- *McSweeney*: '[T]he One True Logic is made true by the mind-and-language-independent world...[which]...makes it the case that the One True Logic is better than any other logic at capturing the structure of reality [2018, Abstract].' So, the logical pluralist denies that any one consequence relation is *metaphysically privileged*, while the pluralist affirms this
- *Problem*: Either privilege has ramifications for what we *ought* to infer, or not. If not, then Hume's is/ought applies. If so, then a further gap does (Clarke-Doane [2015], [2020, Ch. 6]). Even if we ought to infer according to the privileged logic, it remains open *whether to infer* what we ought to - even if it does not remain open whether we *ought* to infer this.
 - *Argument from Weakening*: Suppose we know that we ought to infer *P*. Introduce an ought-like term, $\text{ought}_{\text{Twin}}$, according to which we $\text{ought}_{\text{Twin}}$ not. Then the question arises whether to infer what we ought or $\text{ought}_{\text{Twin}}$ to. Whatever *settling* this question amounts to, it at least satisfies the Law of Weakening. Since it does not (as now we must determine whether to do what we ought, or $\text{ought}_{\text{Twin}}$, to do), knowledge that we ought to infer *P* does not settle the question on its own.
 - *Note*: The argument is not that *motivation externalism* is true! It is about what settles deliberation, no matter what we end up being motivated to do.
 - *Note*: The argument does not depend on its being *true* that we $\text{ought}_{\text{Twin}}$ not infer that *P*. It is about what *'follows' under the assumption* that it is true.

V. Broader Relevance

- The obscurities surrounding logical monism infect monism about normative areas very generally, including moral, epistemic, prudential, aesthetic, and 'all things considered'.
- Methodologically, the argument of Section IV applies to all decisions, broadly construed. There is a gap between what we ought to do *in any sense of 'ought'* and what *to do*, just as Hume noted that there is a gap between what is *F*, for descriptive *F*, and what we ought to do. Knowledge of the facts, *even the normative ones*, fails to settle what to do.
- Metaphysically, normative areas at most 'postulate' properties. They name or (first-order) quantify over uncontroversial inhabitants of reality. But properties are plentiful on many conceptions, both platonist and nominalist. This contrasts with objects, which are at issue in the philosophy of set theory. This makes it harder to see what metaphysical, rather than semantic, question could be at stake in a debate over, e.g., 'epistemic monism'.¹

VI. Conclusion

¹ This is implicitly appreciated in the context of naturalism (Horgan and Timmons [1992, 460]). The point is that it is also true in the context of non-naturalism, a la Huemer [2005], Enoch [2011], or Scanlon [2013].

- Understood as a factual doctrine, Logical Monism lacks methodological and metaphysical interest. The same may be true of monism about all normative domains, like moral, epistemological, aesthetic, prudential, and ‘all-things-considered’.
- There is a sense of ‘monism’ in which it is importantly true of decision, including inference. Pluralism is not an option at the level of action, simply because we can only ever do one thing. So, from the agential standpoint, ‘What to do?’ can only ever receive one answer, ‘Do X!’. But this is something about *us*, not about the normative pluriverse.

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