

Constructing the World

Lecture 5: Hard Cases: Mathematics, Normativity, Intentionality, Ontology

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Plan

- *1. Hard cases
- 2. Mathematical truths
- 3. Normative truths
- 4. Intentional truths
- 5. Philosophical truths
- 6. Miscellanea
- 7. Minimizing the base.

Recap

- Scrutability thesis: there's a compact class of truths such that all truths are scrutable from truths in that class
- So far I've argued: All ordinary truths are scrutable from PQTI.

Hard Cases

- Hard case: a putative class of non-ordinary truths M such that it's not obvious that M is scrutable from PQTI.
 - Mathematical truths
 - Normative truths
 - Intentional truths
 - ...

Today

- I'll argue that in key hard cases, all relevant truths are scrutable from PQTI.
- I'll also consider minimizing the base: moving from the generous PQTI to a smaller base.

Options

1. Rationalism: M is a priori (perhaps under idealization)
2. Empiricism: M is not a priori but scrutable from base truths (or: from non-M truths).
3. Anti-realism: M isn't true
4. Expansionism: Expand the base

Argument from Knowability Extended

- Argument from Knowability: If M is knowable, it is conditionally scrutable from PQTI.
- Argument from Reconditionalization: If M is conditionally scrutable from PQTI, it is a priori scrutable from PQTI.
- So the hardest cases are those in which M isn't knowable (or M is in PQTI).

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Mathematical Truths I

- Unprovable mathematical truths
- E.g. Gödel sentence G of Peano arithmetic
- Apriority doesn't require provability in PA. We know G a priori (by knowing a priori that the axioms of PA are true, hence consistent).

Mathematical Truths II

- E.g. Gödel sentence G of system H , where H models human competence.
- Then we can't know H , but some more ideal reasoner could.
- So on for arbitrary Gödel sentences?

Mathematical Truths III

- Arbitrary sentences of arithmetic?
- Feferman: any can be proved in system reached by iterated Gödelization
 - Q: is this cheating?
- Alternative, any can be known by infinitary idealization
 - Russell's "mere medical impossibility".

Mathematical Truths IV

- Statements of higher set theory, e.g. continuum hypothesis or large cardinal axioms
 - Perhaps knowable under relevant idealization
 - Perhaps indeterminate (set theorist's view)

Mathematical Truths V

- Opponent needs case that's determinate but not ideally knowable.
 - No clear candidates
- If there are such cases
 - Expand base to include some mathematical truths
 - No expansion in vocabulary required?

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Normative Truths

- Moral truths: true but not a priori scrutable
- Prima facie, moral truths (if true at all) are knowable, conditionally scrutable from nonmoral truths, and so a priori scrutable
- Little reason to believe in unknowable moral truths, and knowable truths are plausibly scrutable.

Normative Truths II

- Consistent with error theories, noncognitivism, moral rationalism, moral empiricism (many forms), moral subjectivism.
- Inconsistent with hardline Cornell realism: moral truths a posteriori necessitated without a priori entailments
 - Not clear that anyone holds this view.

Normative Truths III

- Threats to a priori scrutability?
 - Open question argument
 - No threat
 - Ideally rational moral disagreement
 - Accommodate via anti-realism or subjectivism
 - Essential role of emotions in moral knowledge
 - Then ideal reasoning must involve emotions

Normative Truths IV

- Epistemological truths
 - Same issues (leaning toward realism?)
- Aesthetic truths
 - Same issues (leaning toward anti-realism?)
- In each case: little reason to believe in inscrutable truths.

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Intentional Truths I

- Logical behaviorist, analytic functionalist
- Intentional truths (e.g. S believes that p) are scrutable from functional/behavioral truths (plus environmental truths?)
- My view
 - Narrow intentional truths are scrutable from phenomenal truths plus functional truths
 - Wide intentional truths are scrutable from narrow intentional truths plus non-intentional environmental truths.

Intentional Truths II

- Worries for scrutability
- Kripke-Wittgenstein puzzle
 - Appeal to phenomenal intentionality helps?
- Externalism
 - Scrutability from narrow plus wide truths

Intentional Truths III

- Alternative: build intentional truths into base
 - E.g. S believes p , S entertains primary intension p
- Worry: threat of noncompactness
 - All propositions p in base!

Intentional Truths IV

- Worry I: Arbitrary concepts/expressions required
 - Perhaps a few will suffice.
 - E.g. primary intensions can be characterized using intentional relations to primitive concepts?
 - Worst case: the concepts are only mentioned, not used, and in highly delimited way.

Intentional Truths V

- Worry 2: Trivialization. E.g. 'p is true' or 'S would know p if ...' or...
 - Bar mechanisms of semantic descent
 - Bar factive intentional operators?
 - Restrict p to right-hand side of certain intentional relations.

Intentional Truths VI

- Phenomenal truths may be intentional truths
 - Phenomenal redness = phenomenally representing redness
- If so, some intentional truths may be in the base
 - Specified in constrained form using limited vocabulary, as before?

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Philosophical Truths I

- Metaphysics: 3-dimensionalism or 4-dimensionalism
- Epistemology: internalism or externalism
- Philosophy of mind: materialism or dualism?
- Philosophy of action: compatibilism or incompatibilism?
- Philosophy of science: realism or anti-realism?
- Philosophy of maths: nominalism or Platonism?
- Decision theory: causal or evidential?
- Ethics: deontology, consequentialism, virtue ethics?

Philosophical Truths II

- Options (illustrations from metaphysics)
 - Rationalism (modal realism?)
 - Empiricism (spacetime substantivalism vs relationism?)
 - Anti-realism (God?)
 - Expansionism (dualism, quidditism?)
 - Pluralism (3-dimensionalism vs 4-dimensionalism?)

Philosophical Truths III

- Ontological truths: e.g. universal composition?
- PQTI builds in existential truths at macro level, but PQTI- does not.
- Heavyweight quantifier: macro existence claims can't be analytically entailed by micro existence claims?

Philosophical Truths IV

- My (Carnapian) view:
 - existence claims involving a heavyweight quantifier aren't true
 - existence claims involving a lightweight quantifier are scrutable
- Illustration of general pattern:
 - e.g. positive claims about Edenic (primitive) colors inscrutable but untrue
 - positive claims about non-Edenic colors true but scrutable

Philosophical Truths V

- Alternative view: true heavyweight ontological claims inscrutable from PQTI-.
- If so: base requires more existential truths
 - Laws of ontology?
 - No expansion in vocabulary required
 - Scrutability base goes beyond supervenience base?

Philosophical Truths VI

- General worry: philosophical truths are not conclusively settled by simpler base truths. They are settled abductively, without certainty
 - Compatible with ordinary a priori scrutability
 - Not with conclusive a priori scrutability
- My view: philosophical truths outside fundamental natural ontology can be (ideally) settled with certainty
 - Of course we are nonideal.
 - If I'm wrong: expand the base?

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Modal Truths

- Modal truths
 - A priori entailed by nonmodal truths
- Apriority truths
 - Themselves a priori, given S4 and S5 for apriority.

Vagueness

- Epistemic theorist of vagueness: 'X is tall' may be true but unknowable. Ideally inscrutable?
- If so, perhaps no compact base will suffice.
- Scrutability thesis will be false!
- But the epistemic theory is often regarded as implausible
- If the compact scrutability thesis is otherwise plausible, this yields a further reason to reject the epistemic theory.

Demonstratives

- Demonstrative truths
 - ‘That is red’ (Two Tubes case)
- Not always scrutable from ‘I’, ‘now’, etc
- Need further primitive indexicals
 - ‘That experience’

Miscellanea

- Social truths: scrutable from intentional truths
- Metalinguistic truths: scrutable from intentional truths
- Deferential truths: scrutable from metalinguistic truths (plus...)
- Nominal truths: scrutable from metalinguistic truths (plus...)

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Minimizing the Base I

- So far: scrutability of all truths from PQTI?
- Q: How far can we minimize the base?

Minimizing the Base II

- Macrophysical truths: from microphysical truths
- Counterfactuals: from laws
- Microphysical truths: from Ramseyan truths
- Secondary quality truths: from phenomenal and causal truths
- Mass truths: from phenomenal and causal truths

Minimizing the Base III

- Spatiotemporal truths: from spatiotemporal experience and causal truths?
- Nomic/causal truths: from regularities?
- Phenomenal truths: from functional truths?
- Quiddities: from dispositions?
- That's all: from fundamentality?
- Indexicals
- Logical/mathematical expressions

Minimizing the Base IV

- Indexicals, logic/math, fundamentality
- Spatiotemporal expressions?
 - Depending on spatiotemporal primitivism
- Nomic expressions?
 - Depending on Humean scrutability
- Phenomenal expressions?
 - Depending on phenomenal realism
- Quiddities?
 - Depending on quidditism

Minimizing the Base V

- My view
 - Indexicals ('I, 'now', 'This experience')
 - Logic/math
 - Fundamentality
 - Phenomenal (or awareness plus qualities)
 - Nomic ('Is a law of nature that')