Ontological Indeterminacy

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Metametaphysics

- Metaethics asks:
  - What are we saying when we make ethical assertions?
    - E.g. “Such-and-such is good”
  - Do ethical assertions have a determinate truth-value?
  - What determines the truth/status of ethical assertions?

- Metametaphysics asks:
  - What are we saying when we make metaphysical assertions?
    - E.g. “Such and such entities exist”
  - Do metaphysical assertions have a determinate truth-value?
  - What determines the truth/status of metaphysical assertions?

Ontological Questions

- The basic ontological question: “What is there?”
- Specific ontological questions:
  - “Are there numbers?”
    - Yes: Platonists
    - No: Nominalists
  - “Are there mereological sums of arbitrary objects?”
    - Always: Universalists
    - Never: Nihilists
    - Sometimes: Others

Ontological Determinacy

- Q: Do these ontological questions have a determinate answer? Must one of (say) Platonism or nominalism be correct?

- Yes:
  - Quine
  - Lewis, van Inwagen, Sider
  - Most contemporary metaphysicians?

- No:
  - Carnap
  - Putnam, Hirsch, Yablo
  - Many contemporary non-metaphysicians?

Internal and External Questions

- Carnap, "Empiricism, Semantics, and Ontology" (1951)
  - Existence questions always involve linguistic frameworks: e.g. the framework of mathematics, or of propositions.
- There are two sorts of existence questions.
  - *Internal questions:* questions of the existence of entities *within* a linguistic framework
    - "Are there any odd perfect numbers?"
    - "Is there an apple on the table?"
  - *External questions:* questions concerning the existence of the framework's system of entities as a whole
    - "Do numbers exist?"
    - "Do ordinary physical objects exist?"

Internal and External Claims

- Carnap: Internal claims (answers to internal questions) are typically true or false
- Their truth or falsity is framework-relative
  - determined by the rules of the framework, plus experience (and/or?) the world.
- Their truth or falsity may be
  - analytic (e.g. mathematical claims)
  - empirical (e.g. claims about ordinary objects)
- External claims are neither true nor false
  - The choice between frameworks is practical rather than factual
  - Any further question is a “pseudo-question”, without “cognitive content”.

A Carnapian Intuition

- Question: Given that objects X and Y exist, does their sum exist?
- Carnapian intuition: There's no deep further fact here.
  - Once one knows about X and Y, one thereby knows everything relevant there is to know
  - There isn't a further fact here of which one is ignorant
  - One can't even conceive of two relevantly different states of affairs here.
- Once God fixed the facts about elements, how were further facts about mereological sums fixed?
  - By a further decision (contingent truth?)
  - By conceptual necessity (analytic truth?)
  - By pre-existing metaphysical necessity (brute metaphysical truth?)
- None of these options seem attractive.

A Realist Intuition

- So-called “external questions” aren’t questions about language or about frameworks, but are straightforward questions about existence.
  - ∃x number (x)
  - ∀x ∀y ∃z z=sum(x, y)
- Sider, van Inwagen
  - The predicates don’t seem to be vague, and the rest is just first-order logic.
  - “What part of ‘∃’ don’t you understand?”

“Syracuse’s Most Holy Place”

My Project

- I'll try to:
  - Set out a reasonably neutral framework in which to articulate the issues.
  - Do some logical geography, distinguishing positions within this framework.
  - State a deflationary (broadly Carnapian) position within the framework so set out.
  - Defend a deflationary position against some realist considerations.
  - Give a few positive details of the metaphysics and the semantics of a deflationary view.
- I won't try to:
  - Argue for the deflationary view at any length
  - Articulate the full details of a deflationary metaphysics or semantics.

Terminology

- "Internal vs external questions" is arguably suboptimal terminology
- It tends to suggest two different sorts of *sentence*, whereas the relevant distinction is between different *uses* of sentences (or perhaps, different *evaluations* of sentences).
  - E.g. "Prime numbers exist" can intuitively be used/evaluated in both ways
  - Same for "Numbers exist" and "There are four prime numbers less than ten"
- Also, "internal"/"external" presupposes the theoretical apparatus of "frameworks"
  - Is there a more neutral way to cast the distinction?

Ordinary and Ontological Assertions

- Suggestion: we might instead distinguish *ordinary* and *ontological assertions* of existence sentences.
- Ordinary uses are typically made in ordinary first-order discussion of the relevant subject matter:
  - E.g. a typical mathematician's assertion of "There are four primes less than ten"
- Ontological uses are typically made in broadly philosophical discussion where ontology matters
  - E.g. a typical philosopher's assertion of "Numbers exist".

Ontological Sensitivity

- Key difference: For an important sort of utterance evaluation -- call it *correctness*
  - The correctness of an ordinary assertion is insensitive (or at least, not obviously sensitive) to ontological matters
    - The correctness of an ordinary assertion of "There are infinitely many prime numbers" is insensitive to whether Platonism or nominalism is true.
    - The correctness of an ordinary assertion of "There are two objects on the table" is insensitive to whether nihilism/universalism/etc is true.
  - The correctness of an ontological assertion is sensitive to ontological matters.
    - The correctness of an ontological assertion of "There are infinitely many prime numbers" is sensitive to whether Platonism or nominalism is true.
    - The correctness of an ontological assertion of "There are two objects on the table" is sensitive to whether nihilism/universalism/etc is true.

Correctness and Context-Dependence

- I'll mostly remain neutral on whether correctness is the same as truth.
  - My view: correctness is truth.
    - i.e. the truth of ontological claims but not ordinary claims is sensitive to ontological matters.
  - Alternative view: correctness is some other sort of success, such as acceptability or correctness of an implicated content or something else.
    - On this view, the truth of ordinary assertions is ontologically sensitive, but their correctness is not ontologically sensitive.
- I'll also mostly remain neutral on whether the difference between ontological and ordinary assertions is a matter of context-dependence, ambiguity, appropriate standards of evaluation, or some other form of semantic or pragmatic underdetermination.
  - My view: it's a sort of context-dependence.

Neutrality of the Distinction

- Note that the distinction between ordinary and ontological assertions is relatively intuitive and pre-theoretical (though the correct gloss on it might be disputable).
  - Realists can (and should!) accept the distinction.

Revisionary Metaphysics

- Realists who endorse revisionary metaphysics (roughly, a view on which correct ontology denies some claims of commonsense ontology) usually *need* the distinction.
  - I.e. they need a sense in which ordinary assertions of a sentence S can be correct, even though [an ontological assertion of] S is strictly speaking false.

  - Nominalists : “There are an infinite number of primes”.
  - Nihilists: “There are two apples on the table”.
  - Universalists: “There are two objects on the table”.

  - Of course, different revisionary metaphysicians may give different theoretical accounts of correctness, e.g.
    - semantic or pragmatic
    - analyzed via paraphrase, conditionals, quantifier restrictions, or something else.

Descriptive Metaphysics

- Some realist descriptive metaphysicians (roughly, those who think that the correct ontology is commonsense ontology) may reject the distinction.
- But even a realist descriptive metaphysician can accept the difference between the two sorts of assertion: they will simply hold that corresponding ontological and ordinary assertions have the same correctness conditions.
- N.B. Two sorts of realist descriptive metaphysician
  - (I) the coincidence between commonsense and correct ontology is a nontrivial fact about the world: ontological and ordinary assertions differ in cognitive significance, but it *turns out* that their correctness coincides.
  - (ii) the coincidence is a trivial fact: the only sense one can give to ontological assertions derives from commonsense ontology.
- Those of type (i) should clearly accept the distinction. Those of type (ii) might not. But type (ii) is already extremely close to a Carnapian position!

Convergence on Correctness

- Proponents of very different ontological views (in our community) typically agree about judgments of correctness of ordinary assertions in specific circumstances.
  - Platonists and nominalists agree on correctness of ordinary assertions (though not ontological assertions) of "There are infinitely many primes".
  - Nihilists, universalists, and so on agree on the correctness of an ordinary assertion (though not an ontological assertion) of "There are two objects on the table".
- Roughly, correctness reflects ordinary judgments of truth in light of qualitative empirical facts and first-order reasoning, up to but not including distinctively ontological reasoning.
- The commitments of unreflective commonsense ontology (e.g. to ordinary middle-sized objects but not mereological sums) are relevant to the correctness of ordinary existence assertions, but the commitments of ontological theory are not.

Relativity of Correctness?

- Correctness is tied to commonsense ontology. Different speakers or communities might have different commonsense ontologies. So is correctness speaker- or community-relative?
- Say that for Martians but not humans, commonsense ontology includes arbitrary mereological sums. Faced with two apples on a bare table, and asked "How many objects are on the table", humans and Martians will usually make the following ordinary (N.B. not ontological) assertions:
  - Human: There are two objects on the table
  - Martian: There are three objects on the table.
- Question: Which of these ordinary assertions is correct?
- The human's assertion is (presumably) correct. Is the Martian's?

Relativity of Correctness II

- Only two answers seem to be tenable:
  - Both the human and the Martian's assertions are correct. Correctness of ordinary assertions of existence claims depends on speaker's context/community.
  - The human's assertion is correct. The Martian's assertion is incorrect, but it's correct by Martian standards (it's not h-correct, but it's m-correct). There are multiple notions of correctness, possessed by different evaluators.
- Either way, there is a *sort* of relativism about correctness. There two assertions are on a par from a "God's eye" point-of-view, where standards in the vicinity of correctness are concerned.
- Do the human and the Martian have a substantive disagreement? Not simply in virtue of these assertions. Confronted with each other, they may well resolve it terminologically
  - "It depends on how you count objects. Let's say, there are two h-objects and three m-objects".
  - No residual disagreement -- unless they have residual disagreements about substantive ontology (e.g., about whether m-objects really exist).

Relativity of Truth?

- What about ontological assertions? Could their correctness (truth) be relative in a similar way?

- Consider an ontological disagreement between a nihilist and a universalist, faced with two particles in a vacuum chamber.
  - Nihilist: There are two objects in the chamber.
  - Universalist: There are three objects in the chamber.

- Some Carnapians hold that this disagreement is terminological, e.g.
  - by 'object' the nihilist means n-object, and the universalist means u-object
  - by 'there is an X' the nihilist means 'there is a simple X', and the universalist means 'there are things arranged Xwise'

Relativity of Truth II

- I think the diagnosis of terminological disagreement is implausible.
  - Unlike most such cases, the disagreement seems to persist as strongly as ever once the various allegedly ambiguous terms are distinguished:
    - 'Are there really any m-objects?'
    - 'If there u-exists an X, does an X really exist?'
  - Where apparent disagreement involving ordinary existence assertions is terminologically resolvable, apparent disagreement involving ontological existence assertions is not.
- So conflicting ontological assertions cannot both be correct.
  - If so, the truth of ontological assertions is not relative.
- In ontological disagreement, 'there exists' appears to express a *common* concept: the absolute quantifier.

Lightweight and Heavyweight Quantification

- Ordinary existence assertions involve *lightweight* existential quantification
  - I.e. their correctness can be analytic/conceptually necessary/trivial, or can be analytically/apriori/trivially entailed by a claim without a corresponding existence assertion:
    - "There exists a perfect number"
    - "If there are particles arranged chairwise, there is a chair".
- Ontological existence assertions arguably involve *heavyweight* existential quantification
  - I.e. their truth is never analytic/conceptually necessary/trivial, and the only analytic/conceptually necessary/a priori conditionals with such claims as a consequent have corresponding existence assertions in the antecedent:
    - "If there exists an integer that is its divisor sum, there exists a perfect number".
    - "If there is an object with X and Y as parts and no other non-overlapping parts, then the mereological sum of X and Y exists"

Ontological Indeterminacy

- We can now state the core of a deflationary view:
  - The correctness of (at least some) ordinary existence assertions is relative (to speaker or just possibly to evaluator, or to the communities thereof).
  - The truth of (at least some) absolute ontological existence assertions is indeterminate.
    - N.B. even for existence assertions in which the non-existential vocabulary is unproblematic (non-indexical, precise, and so on).
  - That is: the absolute existential quantifier can introduce *relativity of correctness* (for ordinary assertions) and *indeterminacy of truth* (for ontological assertions).

Models, Worlds, and Domains

- Q: How can this be? Isn't the absolute unrestricted existential quantifier a logical notion?
- A: Yes. But logic only tells us how to evaluate a quantified statement in a *model*. For truth, we need to evaluate a quantified statement in a *world*.
- A world is not a model!
  - A model comes with a built-in *domain*
  - A world may not come with a built-in domain

Absolute Domains

- The absolute quantifier requires an *absolute domain* for its evaluation.

- Ontological realist: The world has an associated absolute domain
- Ontological deflationist: The world does not have an associated absolute domain.

- The deflationist might see the indeterminacy of absolute quantification as a sort of *presupposition failure* (or: maybe not)
  - Absolutely quantified assertions presuppose that there is an absolute domain.
  - But there is no such domain: the world lacks the requisite structure.

Creation Myth

- In creating the world, God created a universe, or a wavefunction, or some stuff, or some particles, and/or some minds
  - That was all God needed to do.
  - There was no need to decide whether chairs or tables exist, or whether mereological sums exist.
- Once God fixed the facts about the basis, how could further facts about e.g. the absolute existence of mereological sums be fixed?
  - By a further decision (contingent truth?)
    - No. Any facts here supervene.
  - By conceptual necessity (analytic truth?)
    - No. Incompatible with heavyweight quantifier.
  - By pre-existing metaphysical necessity (brute metaphysical truth?)
    - No. What could ground brute laws of metaphysics (that bind even God)?
- So these facts aren't fixed at all.
  - At best, there may be absolute existential truths about the fundamental domain.

Lightweight Deflationism

- A related deflationary view (Hirsch):
  - Ontological existence assertions are not indeterminate, but their truth-value reflects folk ontology.
- On this view, all quantification is lightweight quantification.
- Both deflationist views agree that (alleged) absolute quantification is in some way "defective":
  - Lightweight deflationist: There is no such concept. (Or: the concept is incoherent?)
  - Heavyweight deflationist: There is a concept of absolute quantification (the one involved in some ontological disagreements), but it imposes demands that the world cannot meet.
- Arguably: the views agree about ontology, and about much of meta-ontology, with just a disagreement about the existence of certain concepts.

Lightweight Realism

- Some other ontologists hold that ontological quantification is lightweight:
  - Lewis, Jackson, Thomasson: It's conceptually necessary that when A and B exist, their mereological sum exists
  - Hale & Wright: It's analytic that if there is a bijection from the Fs to the Gs, there exists a number that is the number of the Fs and the Gs.
  - Quine: It's trivial that when science says X exists, X exists?
- One might call this sort of view *lightweight realism*
  - Truth-value of ontological statements is held to be determinate and non-relative
  - But these views will presumably reject the coherence of heavyweight quantification
- In some respects the view is closer to deflationism than to heavyweight realism
  - There are still no determinately true heavyweight existence assertions
  - From a Carnapian viewpoint, these views privilege one conceptual framework as special

Ordinary Existence Assertions

- Challenge: If there is no absolute domain, how do we analyze the truth-conditions (or correctness-conditions) of existence assertions, including ordinary existence assertions.
  - Can't handle them merely by domain restriction.
- One answer: modify the semantics so that their correctness doesn't involve a domain
  - E.g. Various nominalist/nihilist strategies
- Another answer: supply a domain!
  - Instead of invoking (context- or community-relative) domain *restriction*, we'll invoke (context- or community-relative) domain *determination*.

Furnished Worlds

- Let's say a *furnished world* is an ordered pair of a world and a domain.

- Take an ersatz view of worlds and domains
  - Worlds are sets of sentences about fundamental entities and properties.

  - Domains are classes of singular terms (including descriptions) in canonical language

    (or: classes of equivalence classes of singular terms)

    (perhaps along with some non-singular terms and associated cardinalities)

  - The members of the domain are (or represent) the *entities* in that furnished world.

Furnishing Functions

- A *domain-determination function,* or *furnishing function*, is a mapping from worlds to domains
  - Intuitively, mapping a world to the class of singular terms that refer to entities taken to exist in that world (for a given standard of existence)
  - A world and a furnishing function jointly determine an furnished world
- Only some furnishing functions are *admissible*
  - A world and an admissible furnishing function determine an admissible furnished world.

Truth in Furnished Worlds

- Hypothesis:
  - Predicates (or uses thereof) determine a function from furnished worlds to classes of entities in the domain of that furnished world
  - Likewise for relational terms, general terms, singular terms, etc.
  - So non-quantified sentences (or utterances) determine a function from furnished worlds to truth-values.
- Then use standard semantics for evaluating an existentially quantified sentence (or utterance) at an furnished world
  - It's true if the corresponding open sentence is true of some entity in the domain.

Ordinary Existence Assertions

- Suggestion:
  - Every ordinary context of utterance involves/determines an (admissible) furnishing function f
  - An ordinary utterance is correct at a world W iff it is true at the furnished world <W, f(W)>
- E.g. our folk ontology yields a furnishing function
  - Typical ordinary existence assertions are true iff true at the corresponding furnished world
- Folk ontologies in other communities yield a different furnishing function.
  - E.g. nihilist, universalist, van-Inwagen-esque furnishing functions.

Ontological Existence Assertions

- Q: Can we use this apparatus to analyze (heavyweight) ontological existence assertions?
- Perhaps: absolute quantification determines an indeterminate domain.
- Or perhaps: appeal to supervaluation
  - An absolutely quantified assertion is true at a world W iff for all admissible furnishing functions f, it is true at the furnished world <W, f(W)>.
  - It is false at W iff for all admissible f, it is false at the furnished world <W, f(W)>.
  - Else it is indeterminate at W.

Questions

- Lots of big residual questions:
  - (1) What is it for a furnishing function to be admissible?
  - (2) How does context/community determine a furnishing function?
  - (3) Can furnishing functions mix within a single utterance?
  - (4) Does the appeal to classes, functions, sentences in the semantics create a circularity problem?
  - (5) Are there (pragmatically? philosophically?) distinguished furnishing functions?
  - (6) Is there a concept of absolute quantification?
  - (7) …

Conclusion