Philosophy 240
Symbolic Logic

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Fall 2014

Class #30 - Quine and Ontological Commitment

Two Basic Philosophical Questions

Q1. What exists? (Metaphysics)
- ‣ Are there minds?
- ‣ Are there laws of nature?
- ‣ Is there a God?
- ‣ Ontology: our beliefs about what exists

Q2. How do we know? (Epistemology)
- ‣ Sense experience alone
- ‣ Pure thought and reasoning

Determining Our Commitments

- Some things seem obviously to exist.
  - ‣ trees
  - ‣ houses
  - ‣ people
- Others things are debatable.
  - ‣ numbers
  - ‣ souls
  - ‣ quarks
  - ‣ James Brown
- Let's look at our language.
  - ‣ What do we think exists?
  - ‣ How do we express our existence claims?
    - – Singular terms: names, definite descriptions, pronouns, demonstratives

Problems with Singular Terms

- We have singular terms for objects which don't exist
  - ‣ Names: Santa Claus
  - ‣ Definite descriptions: the king of France
  - ‣ Pronouns: 'He was Sherlock Holmes' arch enemy'
  - ‣ Demonstratives: hallucinations, mirages
  - ‣ 'I slew a Jabberwock for Julie's sake'.

- Plus, there aren't enough names to go around
  - ‣ Real numbers

- To express an existence claim, we say, 'there is an x' or 'x exists'.
  - ‣ Existential quantification

- Let's look at the grammar of existence claims.

Logical Form and Grammatical Form

- KP   Saul Kripke is a philosopher.

- KE   Saul Kripke exists.

- Both KE and KP contain a singular term for the subject, Saul Kripke.
  - ‣ We can use an constant 's'.
  - ‣ Or, we can use a predicate 'Sx' as an abbreviation for the collection of properties of being Saul Kripke (or even just the singular property of being Kripke).

- KP also contains a grammatical predicate (...is a philosopher).

- KE also contains a grammatical predicate (...exists).

- In first-order logic, we represent the grammatical predicate of KP using a logical predicate.
  - ‣ Ps
     ...or...
  - ‣ $(\forall x)(Sx \supset Px)$

- We we represent the grammatical predicate of KE using an existential quantifier.
  - ‣ $(\exists x)x=s$
     ...or...
  - ‣ $(\exists x)Sx$

- Predications of existence are thus treated differently from other kinds of predications.
  - ‣ Logical form may not always follow grammatical form (Russell).
  - ‣ Let's talk about why.

The Ontological Argument

Using 'exists' as a predicate

OA1. The term 'God' may be used to stand for the concept of a thing with all perfections, without presuming that God exists.

OA2. Existence is a perfection; it is perfect to exist, but not-existing would be an imperfection.

OA3. The claim that God does not exist, then, would be a contradiction.

OAC. God exists.

Hume on the Ontological Argument

Predications of existence are not like other predications.

"Though certain sensations may at one time be united, we quickly find they admit of a separation, and may be presented apart. And thus, though every impression and idea we remember be considered as existent, the idea of existence is not derived from any particular impression. The idea of existence, then, is the very same with the idea of what we conceive to be existent. To reflect on any thing simply, and to reflect on it as existent, are nothing different from each other. That idea, when conjoined with the idea of any object, makes no addition to it. Whatever we conceive, we conceive to be existent. Any idea we please to form is the idea of a being; and the idea of a being is any idea we please to form" (Hume, *Treatise on Human Nature*, Book I, Part II, §VI).

▸ In other words: existence isn't a property in the way that other predicates express properties.

The Problem of Empty Reference

- Hume: "To reflect on any thing simply, and to reflect on it as existent, are nothing different from each other."
  - One route: get rid of existence predicates and express existence with singular terms.
  - Then constants (names) refer to existent objects.

- Problem:
  - EB   The Easter Bunny exists.
  - EBN   The Easter Bunny does not exist.

- If names merely denote objects, then in order for EB and EBN to be sensible, 'the Easter Bunny' seems to have to refer to something.

- EB and EBN are sensible.

- They have clear and uncontroversial truth values.
  - EB is false.
  - EBN is true.

- Yet, they contain a name which refers to nothing at all.
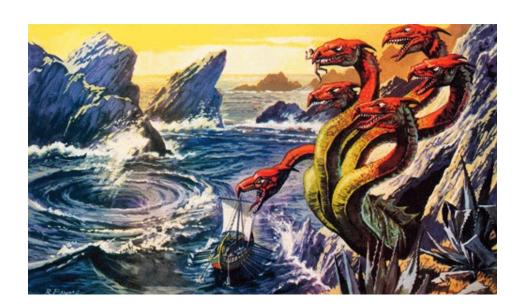
The Riddle of Non-Being

EBN: The Easter Bunny does not exist.

- How can I state EBN without committing myself to the existence of the Easter Bunny?
- If we take existence to be a predicate, EBN says that there is some thing, the Easter Bunny, that lacks the property of existence.
  - ~Eb
- But the Easter Bunny is not anything.
- I can not say something about nothing.
- So, if the Easter Bunny does not exist, then it seems puzzling how I can deny that it exists.
- I am talking about a particular thing.
  - The semantics for **M** require that there be some thing in the domain of quantification to interpret the constant 'b'.
- It seems like it has to have some sort of existence in order for EBN to be sensible.

The Problem

- If we take existence to be a property, we end up with the ontological argument.
- If we use singular terms to express existence, we have to deal with empty names.

The Solution

$\exists X$

- Existential Quantifiers to the rescue!

Existence and Predication

KE   Saul Kripke exists.
KP   Saul Kripke is a philosopher.

- Immanuel Kant argued that existence is not a real predicate.
  - ‣ KE does not saying anything substantive about Kripke.
    - – following Hume
    - – echoing an objection made to Descartes by Pierre Gassendi
- Our logic adopts Kant's view.
- While we predicate existence *grammatically* in KE, we use a quantifier when we express its logical form.
- In KP, we use a logical predicate.
- We separate existence claims from other kinds of predications.
- "To be is to be the value of a variable" (Quine).

Quine's Method for Expressing Ontological Commitments

- The most effective way of formulating a theory is to put it in the language of first-order logic.
  - ▸ "We can very easily involve ourselves in ontological commitments by saying, for example, that *there is something* (bound variable) which red houses and sunsets have in common; or that *there is something* which is a prime number larger than a million. But this is, essentially, the *only* way we can involve ourselves in ontological commitments: by our use of bound variables" ("On What There Is" 12).
  - ▸ "To be assumed as an entity is, purely and simply, to be reckoned as the value of a variable" ("On What There Is" 13)

- Our metaphysics reduces to a process of interpreting our first-order theory.
  - ▸ We interpret a first-order theory by specifying a domain of discourse, a set of objects over which the quantifiers range.
  - ▸ We assign values to variables in order to model the theory, or provide an interpretation which makes the sentences of the theory come out true.
  - ▸ Our metaphysics is the simple byproduct of modeling the theory.

- Existence questions become questions about how best to write one's best theory.

Quine on Empty Names

- There may be names/nouns, but we shouldn't place the burden of reference on them.

- All things being equal, we should prefer standard semantics.
  - ‣ Use constants for names, say.

- If we have over-riding reasons to disavow a commitment that a standard semantics would imply, we should re-write our language.

- Better: Get rid of names!
  - ‣ Turn them into predicates:
    - – "We could [appeal] to the *ex hypothesi* unanalyzable, irreducible attribute of *being Pegasus*, adopting, for its expression, the verb 'is-Pegasus' or 'pegasizes'. The noun 'Pegasus' itself could then be treated as derivative, and identified after all with a description: 'the thing that is-Pegasus', 'the thing that pegasizes'" ("On What There Is" 8).
  - ‣ Use variables:
    - – "Whatever we say with the help of names can be said in a language which shuns names altogether" ("On What There Is" 13).

The Easter Bunny

- Look to the domain of quantification, and the objects which serve as values of our variables.
  - ‣ We regiment our best theory.
  - ‣ It will include, or entail, a sentence like:
    $\sim(\exists x)Bx$
  - ‣ That is logically equivalent to:
    $(\forall x)\sim Bx$

- If we want to know whether this sentence is true, we look inside the domain of quantification.

- If there is no object with the property of being the Easter Bunny, we call this sentence true on the interpretation.

- We construct our best theory so that everything in the world is in our domain of quantification, and nothing else is.

Quine's Criterion is Not Semantic

- Quine does not turn metaphysical questions into semantic ones.

- "How are we to adjudicate among rival ontologies? Certainly the answer is not provided by the semantical formula "To be is to be the value of a variable"; this formula serves rather, conversely, in testing the conformity of a given remark or doctrine to a prior ontological standard. We look to bound variables in connection with ontology not in order to know what there is, but in order to know what a given remark or doctrine, ours or someone else's, *says* there is; and this much is quite properly a problem involving language. But what there is is another question" ("On What There Is" 15-16).

- The question of whether an object exists is the question of how to specify the prior ontological standard.

Our Best Theories

What variables are relevant to the question of what exists?

- Quine is concerned with the best theories for explaining our sense experience.

- Quine is much like his empiricist predecessors in narrowing his focus on sense experience.
  - ▸ "We adopt, at least insofar as we are reasonable, the simplest conceptual scheme into which the disordered fragments of raw experience can be fitted and arranged. Our ontology is determined once we have fixed upon the over-all conceptual scheme which is to accomodate science in the broadest sense..." ("On What There Is" 16-17).

- He does not reduce all claims of existence directly to sense experiences.
  - ▸ We construct a theory of our sense experience.
  - ▸ We look at the theory and decides what it presupposes, or posits.
    - – Interpretations, Models, Domains of Quantifications
  - ▸ Our best ontology will be derived from our best theory.

Posits and Myths

- The values of the bound variables are what a theory presupposes.
- These are the posits, the postulated entities, of the theory.
- In early work, Quine calls them myths.
- They are the result of our choice of a theory.
- This methodology is not intended to denigrate the objects posited.
- "To call a posit a posit is not to patronize it" (*Word and Object* 22).

The Proof of God's Existence from First-Order Logic

Yet one more reason to disdain names

│1. ~(∃x)x=g	AIP	
│2. (∀x)x=x	Principle of identity	
│3. (∀x)~x=g	1, QE	
│4. g=g	2, UI	
│5. ~g=g	3, UI	
│6. g=g • ~g=g	4, 5, Conj	
7. (∃x) x=g	1-5, IP	
QED		