Class 23: Quine

I. Two varieties of platonism

There are two platonist views.
The first, Gödel's, we have already seen.
Now, we look at the second, the indispensability argument.
(We will see Field's response to it in more detail next week.)

(QI)   QI.1: We should believe the (single, holistic) theory which best accounts for our sense
              experience.
        QI.2: If we believe a theory, we must believe in its ontic commitments.
        QI.3: The ontic commitments of any theory are the objects over which that theory first-order
              quantifies.
        QI.4: The theory which best accounts for our sense experience first-order quantifies over
              mathematical objects.
        QI.C: We should believe that mathematical objects exist.

II. On QI.1, and Quine's holism.

Quine is concerned with the best theories for explaining our sense experience; Heather p 3.
Quine is thus much like his empiricist predecessors in narrowing his focus on sense experience.
But, he is unlike traditional empiricists in that he does not reduce all claims of existence directly to sense experiences.
Instead, Quine constructs a theory of our sense experience.
Then, he looks at the theory, and decides what it presupposes, or what it posits.
Our best ontology will be derived from our best theory.
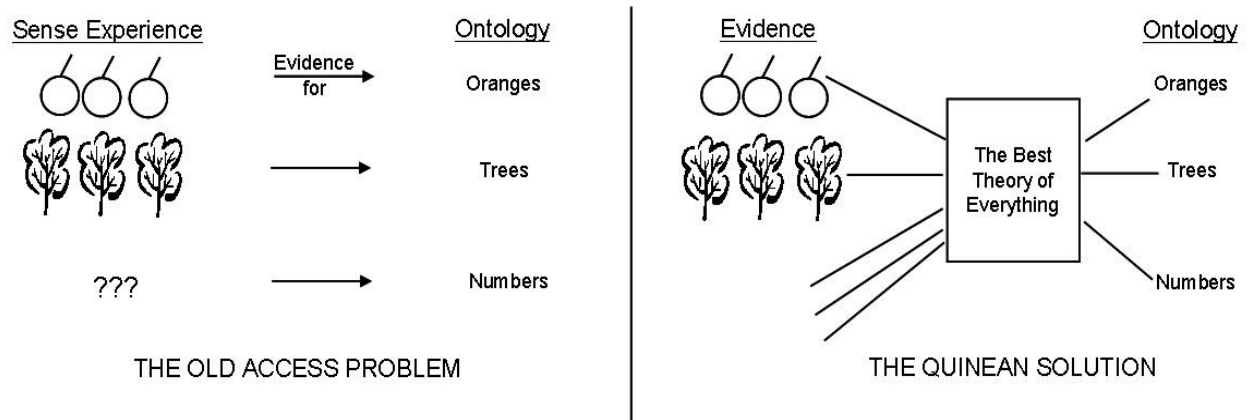
There may be competing best theories.
Thus, at the end of OWTI, Quine seems agnostic about whether to commit to phenomenalism or physicalism.

Should we commit only to the experiences we have, as Carnap tries in the *Aufbau*, or to the physical world which we ordinarily think causes our experience?
Consider Heather's pp 2-3 on no fact of the matter.
But, the best theory will have to have some relation to the best science we can muster.

We did not read "Two Dogmas of Empiricism".
Many of you have read it already, and I did put it as a secondary reading.
My central concern about QI does not concern its holism, though it is a bit of a worry.
In particular, we do seem to protect mathematical statements from revision.
That protection is the point of the foxes and chickens example.
We will always protect the mathematical, keep it immune from revision.
See Mark Wilson, "The Double Standard in Ontology".

III. On QI.2

We can take QI.2 as a definition of ontic (or ontological) commitment.
But, we might be instrumentalist.
Consider a center of mass.
Our best theory might analyze a physical system in terms of its center of mass.
We know that the center of mass, for some systems, might not even lie on the object.
We accept some idealizations and some instrumentalist posits, for the purposes of theoretical or pragmatic simplicity.
So, our theory may be committed, in some sense, to objects to which we are not committed.

IV. On QI.3

In "On What There Is" (OWTI), Quine worries about Pegasus.
We talked about some worries about names in our last class.
Here is the argument proving the existence of God, taking the constant 'a' to stand for God, out of first-order logic.

$$
\begin{array}{lll}
& 1.\ \sim(\exists x)x=a & \text{Assumption, for indirect proof} \\
& 2.\ (\forall x)x=x & \text{Principle of identity} \\
& 3.\ (\forall x)\sim x=a & \text{1, Change of quantifier rule} \\
& 4.\ a=a & \text{2, UI} \\
& 5.\ \sim a=a & \text{3, UI} \\
6.\ (\exists x)\ x=a & & \text{1-5, Indirect proof}
\end{array}
$$

I should have started with Quine's worries about names, which extend into natural language (QQ2).
Consider the sentence:

N: There is no such thing as Pegasus.

Part of Quine's worry is semantic: How can I state N, or any equivalent, without committing myself to the existence of Pegasus?

What is it that N denies?
If Pegasus does not exist, in some sense, then I can not deny that it exists.
I can not say something about nothing!
I am talking about a particular thing, so it has to have some sort of being.

McX appeals to the idea of Pegasus as the referent of my term.
'Pegasus' refers to my idea; N claims that the idea is not instantiated.
McX's solution, as Quine points out, demonstrates a basic confusion of ideas and objects.
'I am a philosophy teacher' refers to an object (me), not an idea.
'Pegasus is a winged horse' seems to have the same structure.
Note the (Benacerrafian) desire for a uniform semantic account.
Why would 'Pegasus' refer to an idea, rather than an object?
"McX would sooner be deceived by the crudest and most flagrant counterfeit than grant the nonbeing of Pegasus" (2)!

Wyman, who represents early Russell or Meinong, distinguishes between existence and subsistence.
Only some names refer to existent objects.
All names of possible objects refer to subsistent objects.
(There are also impossible objects; Quine mentions the round square cupola.
Wyman claims that terms for impossible objects are meaningless.
Quine: "Certainly the doctrine has no intrinsic appeal..." (5)
Note that if we take 'round square' to be meaningless, even though 'round' and 'square' are meaningful, we have to abandon the compositionality of meaning, that the meanings of longer strings of our language are built out of the meanings of their component parts.)
Quine's response to Wyman is amusing in several places.
"Wyman...is one of those philosophers who have united in ruining the good old word 'exist'" (3)!
Quine's main argument against Wyman, though, consists of his positive account of how to deal, with names which lack referents, and how to deal with debates about existence claims, generally.

If I claim that electrons exist, I should be able to demonstrate how I discovered them, or how I posited them, or how their existence was revealed to me.
If you deny my claim that the tooth fairy exists, you will appeal the fact that we never see such a thing, for example.
To resolve disputes about what exists, we should have a method to determine what exists.
At least, we should agree on a way to debate what exists.
Quine urges that the least controversial and most effective way of formulating a theory is to put it in the language of first-order logic.
"To be is to be the value of a variable." (See Jazmine's cite, on p 2.)

V. On QI.4

Do we need mathematical objects?
Heather, p 1-2, thinks Quine thinks not.
But, Quine does think so; he gave up his thought not soon after 1947's "Steps toward a constructive nominalism," with Nelson Goodman.
The confusion arises from the problem about sufficient names, from Cantor.

VI. "On What There Is"

I did not pass around questions for 'On What There Is'.
But, check out the quiz on OWTI, as we did in our next class.
http://www.jcu.edu/philosophy/gensler/ap/quine-00.htm

VII. "Existence and Quantification"

1. For what two reasons does Quine reject Carnap's doctrine of the meaninglessness of category questions?

Comments:
        1. Quine says that category words are hard to distinguish from other terms. His argument here may rely on the analytic/synthetic distinction, which appears prominently in 'Two Dogmas of Empiricism". 2. The system-builder, he says, is after something. That is, if we try to construct a theory which eliminates references to certain (say, mathematical) entities, there is an ontological consequence of success or failure.
        I think Quine's real argument is the double-talk argument at 99-100. If we say that numbers exist (internally) while denying, at the same time, that "numbers exist" is meaningful, we are contradicting ourselves.

2. For what two reasons don't names suffice to reveal the objects of a theory?

Comments:
        1. Pegasus. That is, we have names of fictitious objects. 2. Real numbers. That is, there are more objects than there are names. (Recall that Cantor's diagonal argument shows that we can not list, or name, the real numbers.)

3. When should we take a theory as committed to an object?

Comments:
        If we permit existential quantification over an object, we are committed to that object. To be is to be a value of a variable.

4. How does substitutional quantification offer an alternative to Quine's criterion of ontic commitment? What does Quine say in favor of substitutional quantification? What is wrong with it? How does Quine describe the differences between the intuitionists quantifier and the classical one?

Comments:
        Standard models replace variables of quantification with objects in the domain of the theory. Substitutional quantification takes terms to replace variables, rather than objects in the domain. So, for an existential statement to be true, on substitutional quantification, we just need a term to replace the variable, not an object. Thus, the proponent of substitutional quantification needs an alternate method to determine the ontology of a theory.

Quine argues that, in a denumerable universe, we could prefer substitutional quantification. But, given the need for real numbers, we can not. Still, we would need a way to determine our ontology.
See Heather p 3

5. How do 'x is a unicorn', 'x is a prime number between 10 and 20', and 'x is a number' differ regarding the evidence we accept for each claim? How does Quine reject the positivist's claim that there is no evidence for the last claim?

Comments:
The commitments of a theory, its ontology, are its posits. According to Quine's holism, all evidence is evidence for the theory, as a whole, and all the posits come out, roughly, in the same way. Our best theory is constructed to explain our experiences. It posits sub-visible objects as well as numbers. But, the evidence is all the stimulation of our sense organs.

6. Explain the nominalist's nine-clause substitute for 'There is a prime number between 10 and 20'.

Comments:
Here is the sentence: 'Either 11 is prime or 12 is prime or 13 is prime or...or 19 is prime'. Quine is saying here that the nominalist can use names, but restrain himself from using quantifiers. This is a very odd passage. The nominalist can construct finite numbers out of logic. But, I'm not sure that this is what Quine is worried about.

7. What is the Bentham/Russell theory of paraphrasis? What are its advantages? What is the problem with it? (See 100-102.)

No comments. Let's skip this one, here.

8. What arguments does Quine provide for the logic of branching quantifiers/functionally existential second-order logic? Why does he reject it?

Comments:
Quine presents a sentence that can not be properly regimented into first-order logic:'Each thing bears p to something y and each thing bears Q to something w such that Ryw'. First, Quine notes that branching quantifiers can accommodate the sentence. Then, in order to defend first-order logic, Quine denies that the sentence is really English (p 112: "Its grammar is doubtful"). Then, he provides general considerations for first-order logic.