

**Philosophy 308**  
***The Language Revolution***  
**Russell Marcus**  
**Hamilton College, Fall 2014**

Class #13 - Logical Empiricism  
Wittgenstein and Ayer

# Business

- Papers may be submitted without penalty any time until class on Tuesday
  - ▶ Hard copies
  - ▶ Mailbox in philosophy
- Chomsky movie
  - ▶ Tuesday, October 28, 8pm, **SC- G041**
  - ▶ With discussion to follow
- Today:
  - ▶ Finishing Nate and Megan on Putnam
  - ▶ I'll say one or two things (3 slides)
  - ▶ Questions about reference
  - ▶ On to meaning!

# Megan and Nate on Putnam

# The Rigidity of Natural-Kind Terms

- Names are rigid because they refer to the same individual in all possible worlds.
- Natural kind terms, like water, refer to the same thing in all possible worlds.
  - “When I say “*this* (liquid) is water,” the “this” is, so to speak, a *de re* “this” - i.e., the force of my explanation is that “water” is whatever bears a certain equivalence relation...to the piece of liquid referred to as “this” *in the actual world*” (Putnam 707).
  - That’s rigidity
- We pick out an object, say, by pointing at it.
- We classify it: an elm tree, some water, gold.
- We want to know which other objects are of the same sort.
- So, we need a way of judging whether an object is of that type.
- Essences!
  - determined by scientists



# Natural Kinds and Hidden Indexicals

“Indexicality extends beyond the *obviously* indexical words and morphemes (e.g., the tenses of verbs). Our theory can be summarized as saying that words like ‘water’ have an unnoticed indexical component: “water” is stuff that bears a certain similarity relation to the water *around here*. Water at another time or in another place or even in another possible world has to bear the relation *same<sub>L</sub>* to *our* “water” *in order to be water*. Thus the theory that (1) words have “intensions,” which are something like concepts associated with the words by speakers; and (2) intension determines extension - cannot be true of natural-kind words like ‘water’ for the same reason it cannot be true of obviously indexical words like ‘I.’”

# Putnam's Externalism

- Frege believed that when we refer to an object, we do so, privately, by apprehending a public meaning which determines the referent of my term.
  - ▶ A. Our thoughts determine the meanings (senses) of our sentences.
    - The psychological state of grasping a concept is private.
  - ▶ B. Sense determines reference.
    - It is impossible for terms to differ in extension while having the same intension.
  - ▶ C. Reference can vary without variation in thought
    - The externalist thought experiments
- A, B, and C are internally inconsistent.
  - ▶ Putnam suggests abandoning A.
    - “Cut the pie any way you like, “meanings” just ain’t in the *head!*”
  - ▶ Another option: give up B
    - Sense mediates reference

# Questions on Reference?

# Meaning



# Reference and Meaning

- Frege distinguished sense (meaning) from reference.
- Among references are objects denoted by singular terms.
  - ▶ Names refer to objects named.
  - ▶ Predicates refer to concepts, perhaps, or (extensionally) things which have that property
  - ▶ Frege's weird doctrine about references of sentences
- What about senses?
  - ▶ Frege: third-realm, public objects
  - ▶ Ontologically profligate
- Other options
  - ▶ Method of verification (logical empiricists, following early Wittgenstein)
  - ▶ Meaningfulness (behavior) without meanings (Quine)
  - ▶ Use (later Wittgenstein, Strawson)
  - ▶ Intentions (mental acts, Grice and Schiffer)
  - ▶ Truth (Davidson)
- We'll start, chronologically, with the logical empiricists.

# Logical Empiricism

- The logical empiricists sought a systematic justification for our scientific beliefs, relying only on sense experience
- The modern empiricists (e.g. Hume and Locke) were content to imagine how all our knowledge could be grounded in sense experience.
- The logical empiricists tried actually to trace the line between sense data and science.
- The new logic of Frege, Russell, and Wittgenstein gave Hume's claim that mathematics is the relation of ideas a plausible interpretation.
  - Fregean plant-in-the-seeds analyticity and Frege's *Grundgesetze*
  - Whitehead and Russell's *Principia Mathematica*
- For science: Carnap's 1928 *Aufbau: The Logical Structure of the World*.
  - attempts to develop scientific theory, using the tools of logic, out of sense-data

# Logical Empiricism Against Hegelian Idealism

- Pseudo-problems, pseudo-questions, meaningless language, and controversial epistemology
  - ▶ A. The meaning of life
  - ▶ B. The existence (or non-existence) of God
  - ▶ C. Whether the world was created, with all its historical remnants and memories, say, five minutes ago
  - ▶ D. Why there is something rather than nothing
  - ▶ E. Emergent evolutionary theory, and Bergson's *elan vital*
  - ▶ F. Freudian psychology
  - ▶ G. Marxist theories of history
- Verificationist theory of meaning: for a sentence to be meaningful, it must be verifiable on the basis of observation.
- Any sentence which is unverifiable, like any of the examples A-G above, is meaningless.
  - ▶ “The absolute is lazy” (Ayer).
- The challenge for the logical empiricists was to clarify what it meant to verify a sentence.

# Wittgenstein's *Tractatus*

- The founding work of logical empiricism
- Wittgenstein seeks the limits of language, in distinguishing between what can and what can not be said.
  - §7. Whereof one cannot speak, thereof one must be silent.
- How can we think about the boundary of thought?
- What is outside of the boundary is inaccessible to us.



# The Picture Theory

- Both the world and our language consist of independent atomic elements, which are combined according to strictly logical principles.
- The world is a collection of independent states of affairs.
- If I am standing to the right of you, we could have two atomic facts (my standing and your standing) and a logical relation (to the right of) between those facts.
- I could stand to the right of you, or to the left of you, or on the other side of the planet, all of which are independent of you.
  - ▶ §1.2. The world divides into facts.
  - ▶ §2.06. From the existence or non-existence of one state of affairs, it is impossible to infer the existence or non-existence of another (Wittgenstein, *Tractatus*).
- Language consists of atomic statements of those facts, connected into more complex statements by logical principles.



# Language Mirrors the World

- Language consists of atomic statements of those facts, connected (into more complex statements) by logical principles.
- Language provides a logical structure which is isomorphic to the structure of the world
  - ▶ §2.16. If a fact is to be a picture, it must have something in common with what it depicts.
  - ▶ §2.17. What a picture must have in common with reality, in order to be able to depict it - correctly or incorrectly - in the way it does, is its pictorial form (Wittgenstein, *Tractatus*).

# Analysis and Atomism



- My standing in a place is not an atomic fact, it is a complex fact.
  - I am a complex
  - standing is a complex
  - you are a complex
- The true analysis of the world will involve analyzing these complexes into their simple (atomic) components.
  - Russell and his logically proper names
- Wittgenstein never gives a clear example of an atomic fact.
  - The color of a spot in my field of vision?
- The representations of atomic facts are the foundational elements of the *Tractatus*.
  - Postulates of Euclidean geometry (points, lines, planes)
  - Descartes's synthetic presentation of the *Meditations* (self, imagination, thought)
- A theory of the world that analyzed all of the myriad complexes into their atomic elements would present a veridical and secure picture of the world.
- Analytic philosophy

# Logical Truths as Necessary

- One of the most important advances in modern logic was its ability to characterize properties of logical truth.
- In propositional logic, all logical truths are tautologies, complex statements which are true no matter the truth values of their component variables.
- We might characterize these statements as necessary truths.
  - ▶ The certainty of logic and mathematics provided essential support to Descartes's claim that our minds have substantial content built into their structures.
  - ▶ From the claim that logic and mathematics are innate, it is reasonable to ask whether there are other innate ideas, including the idea of God.



# Wittgenstein: Logical Truths are Nonsense

- The only statements that can picture the world are those that have sense, that can be either true or false, that can picture accurately or not.
- Tautologies are empty of content.
  - ▶ §4.46. The proposition shows what it says, the tautology and the contradiction that they say nothing. The tautology has no truth conditions, for it is unconditionally true; and the contradiction is on no condition true. Tautology and contradiction are without sense.
  - ▶ §6.1251. Hence, there can *never* be surprises in logic.

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# Tautologies Resist Foundations

- §6.127. All the propositions of logic are of equal states: it is not the case that some of them are essentially primitive propositions and others essentially derived propositions. Every tautology itself shows that it is a tautology.
  - ▶ If they can not be placed into an order, they are outside of the realm of knowledge.
  - ▶ But, they are not unknowable in the way that, say, God's goodness would be unknowable, or whether we have free will.
  - ▶ They are unknowable because they are too thin to be objects of knowledge.
  - ▶ They don't picture any fact.

# Frege and Logical Empiricism

- There is a direct line between Frege and logical empiricism.
  - Carnap studied with Frege.
  - Frege sent Wittgenstein to study with Russell in Cambridge (1911).
- Wittgenstein's *Tractatus* was the culmination of the anti-psychologistic enterprise of logical analysis begun by Frege.
- Carnap's *Der Logische Aufbau der Welt*, was patterned on Whitehead and Russell's *Principia Mathematica*, which had, like Frege's *Grundgesetze*, attempted to reduce all of mathematics to logic.
- It would be a mistake, though, to take the logical empiricists as completely aligned with Frege.
- Fregean senses, in their third realm, were the kinds of metaphysical objects that the logical empiricists were deriding.
- The logical empiricists were much closer to Russell, who denied the existence of senses, than to Frege.

# British Empiricism and Logical Empiricism

- The logical empiricists presented a verificationist theory of meaning, inspired directly by Hume and Locke.
- Hume: for a term to be meaningful, it had to stand for an idea in one's mind that could be traced back to an initial sense impression.
  - ▶ Commit to the flames, as meaningless, any speculative metaphysics.
- The logical empiricists replaced Hume's theory of language (which we saw originally in Locke) with a verifiability theory of meaning.
- Legitimate expressions must stand for publically observable objects.
- Combining Frege's logical tools with Hume's empiricist principles.

# The Verification Theory of Meaning

for a sentence to be meaningful, it must be verifiable

- All our justifiable claims are traceable to a core set of claims which refer only to things or events that we can experience.
  - ▶ or derived from axiomatic observations
  - ▶ or introduced by definition
- All and only meaningful statements will be analytic, observable, or derivable (using logic) from observable axioms.
- Any sentence which is unverifiable, including especially claims related to the examples A-G above, is meaningless.
- Some metaphysical questions can be re-cast as scientific ones.
- Many philosophical problems, like the problem of free will, should be dissolved, rather than solved.
- The challenge for the logical empiricists was to clarify what it meant to verify a sentence.
  - ▶ more difficult than it seems
  - ▶ philosophy of science

# Verificationism and Circularity

- The verification theory claims that a proposition is meaningless unless it is verifiable.
- But, to know whether the statement is verifiable, we need to know what it means.
- “Kichwa chake kikubwa.”
  - ▶ If we know that it means that the meaning of life is 42, we can claim that it is not verifiable.
  - ▶ If we know that it is Swahili for ‘his head is big’, then we can claim that it is verifiable.
- Are the toves in fact slithy?
- If we know what a proposition (or sentence or statement) means before we verify it, then verificationism is not doing any semantic work.

# Nonsense and Metaphysics

- There seems to be a difference between real nonsense (gibberish) and metaphysical claims.
- Metaphysical claims can be grammatical, and composed of terms which otherwise might refer.
- They can combine with other claims in consistent ways.
- Some terms which are supposed by the positivists to be meaningless do appear to have content.