

***The Language Revolution***  
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Class 7

Final Thoughts on Frege on Sense and Reference  
Russell's "Descriptions"

# Frege's Puzzles

Frege's sense/reference distinction solves all three.

- The problem of cognitive content is solved by distinguishing the meaningfulness of names from the identities of their bearers.
  - ▶ 'Hesperus' means 'the evening star' but refers to Venus
  - ▶ 'Phosphorus' means 'the morning star' but refers to Venus
  - ▶ 'a=b' conveys the information that the signs 'a' and 'b' refer to the same object.
- The problem of empty reference is solved by showing that a sentence containing an empty name can be meaningful.
  - ▶ Sentences containing empty names have sense, but no reference (truth value).
  - ▶ 'Santa Claus does not exist' also lacks truth value.
    - Oops!
- The problem of opaque contexts is solved by showing that reference within opaque contexts can be to the ordinary senses of names and subordinate clauses.
  - ▶ We'll get back to this in a moment.

# Properties of Propositions

- Propositions are abstract, objective, mind- and language-independent entities that exist in a third ontological realm, neither private, nor physical.
- Compositionality: propositions are structured entities built out of their parts.
- Both sentences and sub-sentential expressions have both sense and reference.
  - ▶ The sense of a whole expression is determined by the senses of its (often sub-sentential) parts.
  - ▶ The reference of a whole expression is determined by the references of its parts.



# Components of Propositions

that Marina is a kitten

- A proposition (the sense of a sentence) is composed of the sense of its subject, or the subject under a mode of presentation, and the sense of its predicate, or the property under a mode of presentation.
- Marina instantiates the sense (or individual concept) of the subject part of the proposition
- The property of being a kitten is an instance of the sense of the predicate, of the concept of kittenhood.
- If both concepts (of Marina and of kittenhood) are instantiated, then the proposition that Marina is a kitten will be true or false depending on whether or not Marina is a kitten.
- Otherwise, the proposition has no truth value.

# Opaque Contexts Revisited

Lois Lane believes that Superman can fly.  
Superman is Clark Kent.  
So, Lois Lane believes that Clark Kent can fly.

- 'Lois Lane' refers to Lois Lane.
- If discourse within opaque contexts were direct, 'Superman' would refer to Superman, 'Clark Kent' would refer to the same person, and the inference would be legitimate.
  - Leibniz's law: substituting equals for equals.
- But, such discourse is indirect.
  - 'Superman' refers to its ordinary sense, the mode of presentation of Superman for Lois Lane.
  - 'Clark Kent' refers to its ordinary sense, the mode of presentation of Superman for Lois Lane
- Since Lois Lane associates different senses with the two signs, the substitution is impermissible.



# Opaque Contexts

- Propositional attitudes
  - know
  - believe
  - fear
  - hate
  - seek
  - want
- temporal expressions
- modal expressions
  - necessarily
  - possibly
- Indirect speech
  - That's what she said
- Belief, belief, belief

# Objects of Language

- Inscriptions or utterances of sentences
- Objects (e.g. Marina, kittens)
- Properties (e.g. being a kitten)
- Individual concepts (e.g. of Marina).
- Frege argues that such posits are not excessive.
  - ▶ Senses are available to us; we can think about them (or apprehend them).
  - ▶ The property of being a kitten (or the set of kittens) is the referent of 'x is a kitten'.
  - ▶ We think about that property, or that set, only under a mode of presentation to us, i.e. its sense.
  - ▶ The multiplication of entities is exactly how we solved the identity and empty reference problems.

# **Two Concerns**

# Concern #1: Analyticity

- The sense of 'Aristotle' for one person:
  - teacher of Alexander the Great, student of Plato, born in Stagira, author of *Posterior Analytics*
- Another person could associate a different sense with 'Aristotle':
  - Author of *Metaphysics*, guy who believed in four causes
- Is 'Aristotle was a student of Plato' an analytic truth?



# Concern #2: Opaque Contexts



- Stephen Schiffer
  - ▶ ‘Marina’s owner believed that Marina is a kitten.’
  - ▶ I am making a presumably true statement.
  - ▶ I have no access to the mode of presentation by which her owner knows that Marina is a kitten.



- Bob Hale
  - ▶ ‘My copy of the *Grundlagen* was on my desk but I thought that it was in my bag.’
  - ▶ Since the ‘it’ occurs in an opaque context, it should refer to its sense, not to its ordinary reference.
  - ▶ But it refers to the same thing that the term at the beginning of the sentence refers to.
  - ▶ ‘It’ is just ‘my copy of the *Grundlagen*’, not that object under a mode of presentation.

# Ways Not To Be Frege

- Some philosophers worry about access to abstract objects like senses.
- Others just resist the multiplication of entities inherent in Frege's reification of meanings.
- Frege's sense/reference distinction solves three puzzles.
  - ▶ The problem of cognitive content is solved by distinguishing the meaningfulness of names from the identities of their bearers.
  - ▶ The problem of empty reference is solved by showing that a sentence containing an empty name can be meaningful when the name has a sense.
  - ▶ The problem of opaque contexts is solved by showing that reference within opaque contexts can be to the ordinary senses of names and subordinate clauses.
- Russell attempts to solve the problems by using analysis and a description theory.
- Extensionalists take the meanings of subjects to be just their referents, and the meanings of predicates to be the sets of objects of which those predicates hold.
  - ▶ Quine solves Frege's problem with opaque contexts by refusing to substitute into opaque contexts.
  - ▶ The problems of cognitive content and empty reference are more difficult for extensionalists.

**Katie and Katie**