

The Language Revolution
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Class #6
Frege on Sense and Reference

Business

Today

- ▶ A little summary on Frege's intensionalism
 - Arguments!
- ▶ The Sense-Reference Distinction
 - Expanding the Third Realm
 - A jigsaw exercise

Thursday

- ▶ Russell's non-intensionalist alternative
 - Mark's presentation

Thoughts and the Third Realm

A Review

- Frege uses the unfortunate term ‘thought’ to refer to meanings of assertions.
 - Sentences can be used to express thoughts.
 - ‘La neige est blanc’ and ‘snow is white’ express the same thought.
- Frege is no idealist.
 - *Grundlagen* principle: Distinguish the psychological from the objective.
 - Thoughts, in Frege’s sense, are not psychological.
 - ‘Proposition’
- Frege’s central claim in “The Thought” is that propositions are neither concrete, material objects nor psychological objects.
- “A third realm must be recognized. What belongs to this corresponds with ideas, in that it cannot be perceived by the senses, but with things, in that it needs no bearer to the contents of whose consciousness to belong” (302).

The logo for 'THIRDIREALM' is displayed in a stylized, metallic, blocky font. The letters are white with a slight gradient and are set against a solid black rectangular background.

Propositions and That-Clauses

- ▶ Meaning theories contain a series of meaning clauses
 - ▶ ‘snow is white’ means-in-English that snow is white
- ▶ The right side of theorems like MC contains a proposition.
- ▶ Propositions are neatly expressed as that-clauses.
 - ▶ not complete sentences
 - that snow is white
 - that $2+2=4$
 - that the door is closed
 - that I am in Clinton NY
- ▶ That-clauses are names of propositions.
- ▶ They can be used as subordinate clauses in a variety of other complex sentences.

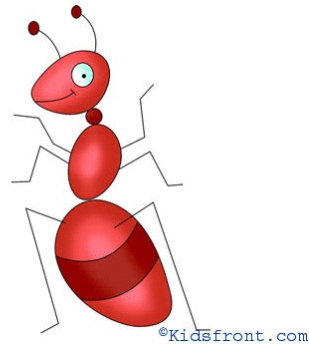
**BETWEEN
THE WORLD
AND ME**

?

Frege's Arguments

Propositions Are Not Concrete

- ▶ They are not concrete “things”.
- ▶ Propositions can be either true or false.
- ▶ Objects can’t be true or false.
 - ▶ “Is a picture, then, as a mere visible and tangible thing, really true, and a stone, a leaf, not true? Obviously one would not call a picture true unless there were an intention behind it” (290).
- ▶ Category error
 - ▶ Truth is a property of assertions, sentence-sized things
 - ▶ *Grundlagen*’s conext principle



Propositions Are Not Psychological

- ▶ “One might come to believe that logic deals with the mental process of thinking and the psychological laws in accordance with which it takes place. This would be a misunderstanding of the task of logic... In order to avoid this misunderstanding and to prevent the blurring of the boundary between psychology and logic, I assign to logic the task of discovering the laws of truth, not of assertion or thought” (289-90).
- ▶ Propositions are identified by their truth conditions.
- ▶ Still, we need reasons (arguments) to show that propositions are not psychological.

Ideas and Propositions

- Neither ideas nor propositions are available to the senses.
- Ideas, unlike propositions, are available to consciousness.
 - ▶ “What is a content of my consciousness, my idea, should be sharply distinguished from what is an object of my thought” (306).
 - ▶ “The thought, in itself immaterial, clothes itself in the material garment of a sentence and thereby becomes comprehensible to us” (292).
- Ideas are mind-dependent and private; propositions are public and shared.
 - ▶ People have different ideas concerning the same propositions.
 - ▶ But, we can all think about the same Pythagorean theorem.
 - ▶ “One sees a thing, one has an idea, one apprehends or thinks a thought. When one apprehends or thinks a thought, one does not create it but only comes to stand in a certain relation...to what already existed beforehand” (302).
- Despite the fact that we express them in language, propositions are independent of language.
 - ▶ ‘Snow is white’
 - ▶ ‘La nieve es blanca’
- Propositions are the bearers of truth-values.
 - ▶ “When we call a sentence true, we really mean its sense is” (292).

Lauben/Peter/Lingens



- ▶ Lauben: “I have been wounded.”
- ▶ Peter: “Dr. Lauben has been wounded.”
- ▶ Lauben and Peter express the same proposition.
- ▶ They do so with different sentences.
- ▶ The ideas they have in their minds of the content of the sentence are different.
 - ▶ When Lauben expresses the proposition, he does so about himself.
 - ▶ When Peter expresses the proposition, he does so about another person.

Ideas and Modes of Presentation

- ▶ Lauben's ideas about the proposition differ from those of Peter.
 - ▶ "Everyone is presented to himself in a particular and primitive way, in which he is presented to no-one else. So, when Dr. Lauben thinks that he has been wounded, he will probably take as a basis this primitive way in which he is presented to himself. And only Dr. Lauben himself can grasp thoughts determined in this way. But now he may want to communicate with others. He cannot communicate a thought which he alone can grasp. Therefore, if he now says, "I have been wounded", he must use the "I" in a sense which can be grasped by others, perhaps in the sense of "he who is speaking to you at this moment", by doing which he makes the associated conditions of his utterance serve for the expression of his thought" (298).
- ▶ The same proposition is communicated.
 - ▶ The claims have the same truth conditions.
- ▶ Different people can think about and express the same proposition.
 - ▶ They have different modes of presentation of the proposition.

Summary:

The Nature of Propositions

- ▶ Propositions, for Frege, are the basic units of language.
 - ▶ *Grundlagen's* Context Principle
- ▶ They have truth conditions, essentially.
- ▶ They are abstract (third realm) objects.
 - ▶ not located in space or time
 - ▶ lack causal powers
- ▶ They are not psychological objects.
 - ▶ They may be the contents of our ideas.
 - ▶ We apprehend or think about a proposition.
- ▶ Propositions are public.
 - ▶ They may be shared among people.
- ▶ They are mind-independent.
 - ▶ True or false whether or not someone thinks about it.
- ▶ They are language-independent.

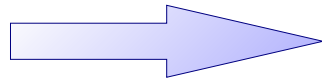
Reference (Finally!)

Taking the Third Realm Sub-Sentential

The Big Picture

- ▶ How does language hook on to the world?
- ▶ Obvious answer: names
 - ▶ Mill: the semantic value of a name is the object it picks out.
 - ▶ 'Fido'-Fido theory
 - ▶ Direct reference theory

Fido



Frege's Three Puzzles

Problems for the 'Fido'-Fido Theory

FP1. The problem of cognitive content

FP2. Failure of presupposition/Empty reference

FP3. Opaque contexts



Dead Puppy
(Actually just sleeping)

Frege's Three Puzzles

Jigsaw Exercise

FP1. The problem of cognitive content

FP2. Failure of presupposition/Empty reference

FP3. Opaque contexts

Base Groups
1 minute



Work Groups
7 minutes



Base Groups
12 minutes

Frege's Solutions

FP1. The problem of cognitive content

- ▶ 'Hesperus' and 'Phosphorus' have the same reference, but different senses
- ▶ Early solution (identity shifts reference to symbols) is too narrow.

FP2. Failure of presupposition/Empty reference

- ▶ 'Sherlock Holmes' has sense, even though it lacks reference.
- ▶ Allows the compositionality of meaning even when some terms lack reference

FP3. Opaque contexts

- ▶ Discourse may be indirect or opaque.
- ▶ Within opaque contexts, references of sentences and singular terms are not their ordinary references, but their senses.
- ▶ "The situation is similar in the case of expressions such as 'to be pleased,' 'to regret', 'to approve', 'to blame', 'to hope', 'to fear'. If, toward the end of the battle of Waterloo, Wellington was glad that the Prussians were coming, the basis for his joy was a conviction. Had he been deceived, he would have been no less pleased so long as his illusion lasted; and before he became so convinced he could not have been pleased that the Prussians were coming - even though in fact they might have been already approaching" (45-6).

FP3: Opaque Contexts



Lois Lane believes that Superman can fly.

Superman is Clark Kent.

So, Lois Lane believes that Clark Kent can fly.

- ▶ By compositionality, we should be able to substitute equals for equals.
- ▶ Substitutivity of references fails.
- ▶ But in the opaque context, 'Superman' is the object under its mode of presentation for Lois Lane.
- ▶ So, we shouldn't expect substitutivity.

Senses

- ▶ Senses are intensions.
 - ▶ Like propositions in “The Thought”
- ▶ They are the *meanings* of terms and sentences.
- ▶ Each of us grasps a term or sentence under a mode of presentation.
- ▶ Different people associate different senses with a given linguistic object.
- ▶ There are senses/meanings for all linguistic objects:
 - ▶ Names (and other definite descriptions)
 - ▶ Properties
 - ▶ Sentences

References

- ▶ References of singular terms (e.g. names) are the objects that they designate.
- ▶ References of predicates
 - ▶ properties (if one is an intensionalist)
 - ▶ sets of objects that fall under the concept expressed (if one is an extensionalist)
 - See Frege, “On Concept and Object.”
- ▶ References of sentences
 - ▶ “If it were a question only of the sense of the sentence, the thought, it would be unnecessary to bother with the reference of a part of the sentence; only the sense, not the reference, of the part is relevant to the sense of the whole sentence. The thought remains the same whether ‘Odysseus’ has reference or not. The fact that we concern ourselves at all about the reference of a part of the sentence indicates that we generally recognize and expect a reference for the sentence itself “(42).
 - ▶ “It is the striving for truth that drives us always to advance from the sense to the reference. We have seen that the reference of a sentence may always be sought, whenever the reference of its components is involved; and that this is the case when and only when we are inquiring after the truth value. We are therefore driving into accepting the *truth value* of a sentence as constituting its reference. By the truth value of a sentence I understand the circumstances that it is true or false. There are no further truth values. For brevity I call the one the True, the other the False” (42).

Sense, Reference, and Meaning

- ▶ When we ask for the meaning of a term, our question may be ambiguous between sense and reference.
- ▶ The senses of terms are their meanings.
 - ▶ For singular terms, they are modes of presentation of objects.
 - ▶ For predicates, they are concepts (how we think of properties)
 - ▶ For sentences, they are meanings (propositions).
- ▶ The references of terms are what they designate.
 - ▶ For singular terms, they are objects.
 - ▶ For predicates, they are extensions (things of which the property holds) or concepts.
 - ▶ For sentences, they are truth values.
- ▶ See Letter to Husserl 24 May 1891.

The Relation Between Sense and Reference

- ▶ “The sense of a proper name is grasped by everybody who is sufficiently familiar with the language or totality of designations to which it belongs; but this serves to illuminate only a single aspect of the reference, supposing it to have one. Comprehensive knowledge of the reference would require us to be able to say immediately whether any given sense belongs to it. To such knowledge we never attain” (37).
- ▶ The sense of a term determines its reference.
- ▶ I grasp, in my thoughts, the sense of a term.
 - ▶ That’s what Locke over-emphasized.



Components of Propositions

E.g. that Marina is a kitten

- ▶ It could contain the sense of 'Marina', the reference of 'Marina' (i.e. Marina herself), or something else.
- ▶ It could contain the sense of 'is a kitten', the reference of 'is a kitten' (i.e. the set of kittens), or something else.
- ▶ If propositions contained the referents of their component terms, then the proposition that the morning star is the evening star would be the same proposition as that the morning star is the morning star.
 - ▶ So propositions are composed of the sense of the subject, or the subject under a mode of presentation, and the sense of the 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.

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).
- ▶ Propositions (e.g. that Marina is a kitten)
 - ▶ The mode of presentation of a sentence
- ▶ The true and the false
- ▶ 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 is the referent of 'x is a kitten'.
 - ▶ We think about that property only under a mode of presentation to us, i.e. its sense.
 - ▶ The multiplication of entities solves the identity, empty reference, and indirect discourse problems.

Three 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.

Concern #3: Profligacy

- ▶ 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 intensionalist sense/reference distinction solves the three puzzles.
- ▶ 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 just refusing to substitute into opaque contexts.
 - ▶ The problems of cognitive content and empty reference are more difficult for extensionalists.
- ▶ Russell attempts to solve the problems by using analysis and a description theory.
 - ▶ Mark on Thursday