

***The Language Revolution***  
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Class 6  
Frege on Sense and Reference

# Frege's Three Puzzles

FP1. The problem of cognitive content

FP2. Failure of presupposition/Empty reference

FP3. Opaque contexts

# FP1: Cognitive Content

1. Hesperus is Hesperus
2. Hesperus is Phosphorus.
  - ▶ 1 seems uninformative, knowable *a priori*, an analytic truth of language or logic, and necessarily true.
  - ▶ 2 seems informative and knowable only *a posteriori*, a synthetic, contingent, empirical truth.

Given that 'Hesperus' and 'Phosphorus' refer to the same thing, how can there be such a difference?



# Frege's Solution to FP1

- Names, in fact all singular terms, have both sense and reference.
- “It is natural, now, to think of there being connected with a sign (name, combination of words, letter), besides that to which the sign refers, which may be called the reference of the sign, also what I should like to call the *sense* of the sign, wherein the mode of presentation is contained” (37).
- ‘Hesperus’ and ‘Phosphorus’ have the same reference.
- They have different senses.

# Senses

- “A proper name (word, sign, sign combination, expression) *expresses* its sense, *stands for* or *designates* its reference. By means of a sign we express its sense and designate its reference” (40).
- Senses are the intensions for which Frege argued in “The Thought”.
- Each of us grasps a term or sentence under what Frege calls a mode of presentation.
- Different people associate different senses with a given linguistic object.

# References

- References of names are the objects that those terms designate.
- References of predicates
  - properties (if one is an intensionalist)
  - sets of objects that fall under the concept expressed (if one is an extensionalist).
- Distinguish meaning and truth
  - “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).
- When we ask for the meaning of a term, our question may be ambiguous.

# 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.
- My thoughts determine the sense of a term.

# FP2: Failure of Presupposition

the problem of empty reference

- 'Sherlock Holmes lives at 221B Baker Street'.
- The meaning of the whole proposition is composed of the meanings of its parts.
- 'Sherlock Holmes' lacks reference.
- If meaning is just reference, then the sentence lacks meaning.



# Frege's Solution to FP2

- Separate sense and reference
- 'Sherlock Holmes' has sense, even though it lacks reference.
- Allows the compositionality of meaning even when some terms lack reference
- Similar analyses can be given for descriptions which pick out a unique individual.
  - ▶ The president of Hamilton College wears bangs.



# FP3: Opaque Contexts

- Lois Lane believes that Superman can fly.
- Superman is Clark Kent.
- So, Lois Lane believes that Clark Kent can fly.
  - ▶ Substitutivity fails.



# Frege's Solution to FP3

- Within opaque contexts, references of sentences and singular terms are not their ordinary references, but their senses.
- Discourse may be indirect.
  - ▶ “In order to speak of the sense of an expression ‘A’ one may simply use the phrase ‘the sense of the expression “A”’. In reported speech one talks about the sense, e.g., of another person’s remarks. It is quite clear that in this way of speaking words do not have their customary reference but designate what is usually their sense. In order to have a short expression, we will say: In reported speech, words are used *indirectly* or have their *indirect reference*”(38).
  - ▶ “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).
- When we say that Lois Lane believes that p, the object of her belief is a that-clause, which is the name of a proposition, the sense of a sentence.

# Indirect Discourse

Lois Lane believes that Superman can fly.

- Given compositionality, the reference of the that-clause should be the True.
- But, if 'Superman can fly' referred to the True, then we should be able to substitute any truth and retain the truth value of the whole.
  - ▶ 'Hamilton College is in Clinton NY'
  - ▶ 'Lois Lane believes that Hamilton College is in Clinton NY.'
- The reference of a that-clause in indirect discourse is its ordinary sense.