

The Referential View and Frege's Criticisms

1. The Referential Theory of Meaning

Referential Theory of Meaning:

The meaning of any linguistic expression e is e 's referent (the thing it refers to).

This theory is perhaps the most straightforward – and the most intuitive – when it comes to *singular terms* – that is, terms that refer to specific objects/people.

Example: Take a proper name such as “Barack Obama.” According to the Referential View of meaning, the meaning of this proper name is a specific person in the world: namely, Barack Obama.

However, the theory also applies to other parts of speech as well. Take *predicates*. The standard view is that the referent of a predicate is a property. For example, consider the sentence:

- (1) Barack Obama was born in Hawaii.

On the standard view, the referent of the predicate “was born in Hawaii” is the property of *having been born in Hawaii*. Similarly, the referent of the property, “is smart” is the property of *being smart*.

- But what's a property? There are different views on the metaphysics of properties. One possibility is that a property is the *extension* of a predicate – i.e., the set of things that instantiate it. On this view, the property of *having been born in Hawaii* is the set of individuals who were born in Hawaii.

2. Frege's Criticisms of the Referential View

The Objection from Cognitive Value:

“ $a=a$ and $a=b$ are obviously statements of differing cognitive value; $a=a$ holds *a priori* and, according to Kant, is to be labeled *analytic*, while statements of the form $a=b$ often contain very valuable extensions of our knowledge.”

Here's one way of seeing Frege's worry. Consider the following statements:

- (2) Superman is Superman.
 (3) Clark Kent is Superman.

Now, “Superman” and “Clark Kent” have the same referent. So according to the Referential View, they have the same meaning. Now, since (2) and (3) are the exact same except for this difference in name, then since the two names mean the same thing, it would seem to follow that the overall sentences (2) and (3) also mean the same thing. At least this follows if we accept the plausible principle of “Compositionality”, according to which the meaning of a whole sentence is determined by the meanings of its parts:

Compositionality:

The meaning of any complex expression is determined by the meanings of the simple expressions that compose it, together with their mode of combination.

So combining the Referential View with Compositionality leads to the conclusion that (2) and (3) mean the same thing. But, Frege objects, this is unable to account for the fact that they differ in their “cognitive value” – i.e., their informational content.

Here is one way of formulating this argument more precisely:

Argument from Cognitive Value

1. If the Referential View is true, then “Clark Kent” means the same thing as “Superman.” (Premise)
2. If “Clark Kent” means the same thing as “Superman”, then “Clark Kent is Superman” means the same thing as “Superman is Superman.” (from Compositionality)
3. “Clark Kent is Superman” and “Superman is Superman” differ in cognitive value. (Premise)
4. If two sentences differ in cognitive value, they have different meanings. (Premise)
5. “Clark Kent is Superman” and “Superman is Superman” have different meanings. (from 3, 4)
6. So “Clark Kent” does not mean the same thing as “Superman” (from 5, 2)
7. So the Referential View is false. (from 6, 1)

Note that nothing hinges on the details of this example. Frege’s own example involved Hesperus (the evening star) and Phosphorus (the morning star) which were thought by the Babylonians to be two distinct celestial bodies, when in fact both were Venus observed at different times of the day. We can also give examples involving pseudonyms (e.g., Charlotte Bronte vs. Currer Bell).

Question:

Is there any viable way of defending the Referential View in the face of this objection?

The Objection from Belief Reports

Contrast the following two belief reports:

- (4) Lois Lane believes Superman is Superman.
- (5) Lois Lane believes Clark Kent is Superman.

Intuitively, (4) is true, whereas (5) is false. Now, it seems plausible that sentences of the form, “*x* believes *S*” should be analyzed as saying that *x* stands in the belief-relation to the meaning of *S*. But, as we’ve seen, the Referential View holds that the meaning of “Superman is Superman” is the same as the meaning of “Clark Kent is Superman”. So it is hard to see how we can explain this difference in truth-values if the Referential View is correct.

The Objection from Empty Names

In the 19th Century, many astronomers believed that there must be a small planet in between Mercury and the Sun, whose gravitational field affected the orbit of Mercury. This alleged planet was known as “Vulcan.” At the time, astronomers would have assented to claims such as:

- (6) Vulcan is hot.
- (7) Vulcan is a planet.

But it turns out that there is no such planet. So, according to the Referential View, their use of the name “Vulcan” was meaningless. But, intuitively, it seems they meant something by this term – something that figured in the thoughts expressed by utterances of (6) and (7).

3. Frege’s Positive Proposal

Senses

Frege proposes that in addition to there being an expression (e.g. the words, “Barack Obama”) and the referent (e.g. the person Barack Obama), there’s a *sense* – something that mediates between the expression and the referent. The problem with the Referential View, according to Frege, is that it leaves out this crucial ingredient of meaning.

Big Question: What exactly are senses?

Frege characterizes a sense as a “mode of presentation” for the referent.

Telescope Metaphor:

“Somebody observes the Moon through a telescope. I compare the Moon itself to the reference; it is the object of the observation, mediated by the real image projected by the object glass in the interior of the telescope, and by the retinal image of the observer. The former I compare to the sense, the latter is like the idea or experience.”

As suggested by this metaphor, Frege denies that senses are privately held mental images or ideas. Indeed, Frege was a stident opponent of the Idea View of meaning. In many places, Frege stresses that for him sense are *objective*, not *subjective*. It is important for him that they are public, in the sense that they can be shared by individuals.

What then are senses? Frege gives relatively few concrete examples. However, in a famous footnote, he writes:

“In the case of an actual proper name such as ‘Aristotle’ opinions as to the sense may differ. It might, for instance, be taken to be the following: the pupil of Plato and teacher of Alexander the Great. Anybody who does this will attach another sense to the sentence, ‘Aristotle was born in Stagira’ than will a man who takes as the sense of the name: the teacher of Alexander the Great who was born in Stagira.”

- *Comment:* This footnote has suggested to some that the sense of a name is a *definite description* - that is a description of the form, “*The so-and-so*”. This “descriptivist view” of names was later attacked by Kripke. We’ll discuss Kripke’s criticisms in a couple of weeks.

In his essay, “Thought”, Frege gives a more explicit metaphysical characterization of senses:

“[T]houghts [i.e., the senses of entire sentences] are neither things in the external world nor ideas. A third realm must be recognized. Anything belonging to this realm has it in common with ideas that it cannot be perceived by the senses, but has it in common with things that it does not need an owner so as to belong to the contents of consciousness.”

Thus Frege takes senses to be abstract entities, distinct from both physical objects and mental ideas.

Residual Worry: Do we have a clear, independent grip on these abstract entities? Is it legitimate to posit such entities simply in order to solve the problems facing the Referential View?

Compositionality for Frege

Frege has a “two-tiered” conception of meaning:

Frege’s Two Tiers of Meaning:

Linguistic expressions *express* senses, which in turn determine the referents of those expressions.

As a result, Frege offers a two-tiered conception of compositionality.

Compositionality of Sense: The senses of expressions within a sentence combine to determine a *thought*, which is the sense of an entire sentence.

Compositionality of Reference: The referents of the expressions within a sentence to determine a truth-value for the sentence. Frege takes the truth-value of a sentence to be the referent of the whole sentence: every true sentence refers to the True, every false sentence refers to the False.

4. How Does Frege’s Positive View Solve the Problems Facing the Referential View?*Solving the Problem of Cognitive Significance*

Recall the contrast between (2) (“Superman is Superman”) and (3) (“Clark Kent is Superman”). According to Frege, while “Superman” and “Clark Kent” have the same reference, they have different senses. And this difference in senses explains how they can differ in cognitive value.

Solving the Problem of Belief Reports

For Frege, when we say “ x believes S ”, what we mean is that x believes the sense of sentence S . Now, the sense of “Superman is Superman” is different from the sense of “Superman is Clark Kent”. hence (4) (“Lois Lane believes Superman is Superman”) and (5) (“Lois Lane believes Clark Kent is Superman”) can have different truth-values.

- NB: Given Compositionality of Reference, this forces Frege to say that when you put the sentence “Superman is Clark Kent” under the word “believes”, this sentence denotes its sense rather than its truth-value.

Solving the Problem of Empty Names

Frege takes some names to have a sense, but lack a reference:

“The words ‘the celestial body most distant from the Earth’ have a sense, but it is very doubtful they have a reference.”

“The sentence ‘Odysseus was set ashore at Ithaca while sound asleep’ obviously has a sense. But it is doubtful whether the name ‘Odysseus,’ occurring therein, has reference...”

Thus Frege can maintain that sentences (6) (“Vulcan is hot”) and (7) (“Vulcan is a planet”) have senses, and hence meanings, even though “Vulcan” does not have a referent. Moreover, since “Vulcan” lacks a referent, the entire sentences (6) and (7) also lack a referent, and hence lack a truth-value: they are neither true nor false.

A worry for Frege’s Solution: What does Frege’s View predict about sentence (8)? Does this seem plausible?

(8) Vulcan does not exist.