

Frege and Russell on Names and Descriptions. Part IA Meaning.

Lecture I, *Frege: Sense and Reference of Names*, 20th February.

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In these lectures, we'll be focusing on an interesting class of words, names, e.g., 'Cambridge', 'Mary', 'John', and so on, how we should think about their meaning, and how they relate to descriptions, e.g., 'the city on the River Cam'. In particular, we'll be looking at what two giants of analytic philosophy, Gottlob Frege (Lectures I–II) and Bertrand Russell (Lecture III–IV), had to say about names and descriptions.

1. Pure Reference and the Puzzle of Identity

1.1. It is tempting to think that all that a name does is refer. The name 'Cambridge' refers to the city Cambridge, 'Mary' refers to Mary, and so on. In other words, you might just think that the meaning of a name is what it refers to—what we call *the referent of the name* or the *bearer*. Frege rejected this idea. In so rejecting it, he distinguished between the *sense* (*Sinn*) and the *reference* (*Bedeutung*) of a name.

1.2. We can begin to understand why Frege thought that the meaning of a name cannot be exhausted by its referent, as well as understand what Frege means by the distinction between sense and reference, by first looking at a puzzle—the so-called *Puzzle of Identity*, see (Frege, 1948). Ultimately, Frege thinks that such a puzzle is resolved by distinguishing between the sense and reference of a name. Consider:

Puzzle of Identity (Hesperus & Phosphorus).

The story goes that ancient astronomers identified a certain celestial body visible in the evening as 'Hesperus' (or 'The Evening Star') and also identified a certain celestial body visible in the morning as 'Phosphorus' (or 'The Morning Star'). What the ancient astronomers did not realise is that Hesperus and Phosphorus referred to the same entity: Venus. As such, they would have been very surprised to learn that Hesperus is Phosphorus—this is an interesting astronomical statement. Of course, they would be very much bored to be told that Phosphorus is Phosphorus or Hesperus is Hesperus—this is an uninteresting, trivial fact of which they were very well aware.

1.3. Why is this a *puzzle*? This needs a little unpacking. First of all, it's clear that we should generally accept:

(NR) If the meaning of a name is its referent, then any two co-referring names mean the same.

That is, if the meaning of a name is just its referent, then if n_1 and n_2 co-refer, i.e., they refer to the same object, then n_1 and n_2 mean the same—there is nothing more to the meaning of a name.

1.4. Secondly, it's standardly thought—and Frege agrees—that language is *compositional*. This is usually understood as the claim that the meaning of expressions are determined by the meaning of their parts. Presently, this idea is important because it motivates the following principle, *the principle of substitution*:

(S) If two words mean the same thing, then we can substitute, or replace, one word for the other word in any sentence containing either word without changing the meaning of that sentence.

1.5. Finally, Frege accepted a notion of sentence meaning closely related to information, or cognitive value.

(C) If two sentences mean the same thing, then they convey the same information and we cannot have diverging cognitive attitudes to one and not the other, e.g., believe one and not the other.

1.6. Now we can see why there's a puzzle. If we accept that the meaning of a name is just its referent, then assuming **(NR)**, it follows that 'Hesperus' and 'Phosphorus' just mean the same, i.e., Venus. But, if 'Hesperus' and 'Phosphorus' just mean the same then, by **(S)**, any occurrence of 'Hesperus' in a sentence can be replaced for 'Phosphorus' without any change in the meaning of the sentence. In which case, 'Hesperus is Hesperus' and 'Hesperus is Phosphorus' mean the same. But this is a problem: in the *Puzzle of Identity*, our ancient astronomers had diverging cognitive attitudes towards these two sentences—'Hesperus is Hesperus' is uninteresting, whereas 'Hesperus is Phosphorus' was a significant statement. This contradicts **(C)**.

1.7. Importantly, this kind of puzzle is quite general: there's nothing essential to it being about ancient astronomers. The puzzle arises from any two co-referring expressions a and b and the fact that we can/should adopt different attitudes to $a = a$ and $a = b$. Frege takes this kind of puzzle to show that there some element of the meaning of names that is not reference. This element of meaning he calls the *sense* of a name.

2. Frege's Notion of Sense

2.1. So, for Frege, names refer—the referent of 'Phosphorus', for example, is the planet Venus. Of course, the referent of 'Hesperus' is also the planet Venus. However, for Frege, names also have *sense*. The sense of the names occurring in the sentence contribute to the sense of that sentence. Our cognitive attitudes track the sense of the sentence. This is why our ancient astronomers could have different cognitive attitudes to 'Hesperus is Hesperus' and 'Phosphorus is Hesperus', even though all the names involved are co-referring. In talking about two names 'Ateb' and 'Afla' for the same mountain, Frege nicely summarises this idea:

... What corresponds to the name 'Ateb' as part of the thought must therefore be different from what corresponds to the name 'Afla' as part of the thought. This therefore cannot be the reference, which is the same for both names, but must be something which is different in the two cases, and I say accordingly that the sense of the name 'Ateb' is different from the sense of the name 'Afla'. (Frege, 1980[1914]: 80)

2.2. Frege talks about the sense of a name as a *mode of presentation* or a *mode of designation* for the referent. The sense of a name is *a way of thinking of* the referent *as* the thing which satisfies a particular condition. So, in the case of two co-referring names with different senses, we can think of the two names as picking out the same object but *via* two different modes of presentation, or ways of thinking. Thinking that names have sense, then, is committing to the idea that we must not only think of a certain object to understand a sentence containing a name, but that we must think of that object in a particular way.

2.3. Often, the sense of a name can be conveyed via some *description* of a condition the referent satisfies. Thus, we can specify the sense of 'Phosphorus' as 'the brightest celestial body present in the morning which is not the Sun or Moon'. However, we should be careful here. Whilst we can often specify the way of thinking about some referent descriptively, we shouldn't assume that we can always specify the mode of presentation descriptively. The sense is just a way of thinking about the referent. This, of course, leaves the notion of a sense a bit unclear; but I here want to just stress that grasping the meaning of a name should not just be identified with knowledge of some description satisfied by the referent. There's no evidence that Frege thought all thinking about objects is descriptive, and good reasons for him not to, see (Evans, 1982: §1.5).

2.4. Another key aspect of sense is that it is *objective*. That is, we should sharply distinguish between the sense of a name and the *ideas* that we might individually associate with that name. After all, the sense of a name contributes to the sense of the *sentences* in which it occurs and the sense of sentences is what is tracked by cognitive attitudes like belief. The content of a belief is a public and shareable matter: we can both think a thought with the same content. Frege, of course, does not deny that we have ideas associated

with names—particular images or feelings. Nor does Frege deny that ideas are psychological. Rather, Frege stresses that ideas in this sense are not part of the meaning of expressions like sense is. Ideas in this sense are *not shareable*, nor are they objective. The sense of a name, on the other hand, contributes to the public and objective content, or meaning, of the sentence in which it occurs.

3. Propositional Attitudes

3.1. We should say more about what Frege has to say about propositional attitudes. This, in turn, will make it clearer *how* Frege's notion of sense solves the issues it was introduced to solve. Propositional attitudes are states represented by statements like 'x believes that S', where x is replaced with a singular term and S is replaced with a sentence. Frege accepts a principle of substitution similar to (S) for *reference* and *truth*:

(T) If two words **refer** to the same thing, then we can substitute, or replace, one word for the other word in any sentence containing either word without changing the **truth value** of that sentence.

However, (T) initially seems to present the following problem. Consider the following three claims.

(1) Lois thinks that Superman is cool (2) Superman is Clark Kent (3) Lois thinks that Clark Kent is cool

(1) can be true without (3) being true: Lois can think that Superman is cool without thinking that Clark Kent is cool. However, since (2) is true and Superman *is* Clark Kent, it follows from (T) that (1) entails (3).

3.2. This problem should be particularly troubling. It is not obvious that a distinction between sense and reference alone resolves this problem: even if we insist that there is not just the reference of a name, but also its sense, if we have a principle like (T)—which Frege accepts—we are saddled with this problem. The important move that Frege makes is to deny that 'Superman' and 'Clark Kent' have the same reference in *both* (1) and (2). That is, Frege argues that, although 'Superman' and 'Clark Kent' have the same reference in (2), 'Superman' and 'Clark Kent' do not have the same reference in *propositional attitude contexts* like (1).

3.3. Frege distinguishes between *customary* reference and *indirect* reference. Outside of propositional attitudes, a name's customary reference is simply its reference. For example, in (2), 'Superman' and 'Clark Kent' both have their customary reference and this is the same individual. This is why (2) is true: Superman *is* Clark Kent. However, within propositional attitude contexts, the reference of a name is not its customary reference, but its indirect reference. Crucially, **the indirect reference of a name is its sense**. Why? Think: the content grasped when one thinks something is made up of the senses of the components of the thought.

3.4. This allows Frege to say what's really going wrong with (1)–(3), as well as the *Puzzle of Identity* earlier. In (2), the reference of 'Superman' and the reference of 'Clark Kent' are the same—the individual who is Superman. However, in (1), the reference of 'Superman' is not the individual who is Superman but the *sense* of the name 'Superman'—the indirect reference of 'Superman'. Crucially, the sense of the name 'Superman' is not the same as the sense of the name 'Clark Kent'. Thus, (T) does not allow us to conclude (3) from (1) and (2). (T) only says that if two words refer to the same thing, we can substitute one for the other.

References

- Evans, Gareth (1982). *The Varieties of Reference*. Ed. by John Henry McDowell. Oxford: Oxford University Press.
- Frege, Gottlob (1948). Sense and Reference. *Philosophical Review* 57, 209–230.
- Frege, Gottlob (1980). *Philosophical and Mathematical Correspondence*. Blackwell, Oxford.