Philosophy of Language // Spring 2018

Handout 1

Sense and reference: Frege

THE PUZZLE ABOUT IDENTITY. What is the meaning of the statement:

$$2 \times 3 = 8 - 2? \tag{1-1}$$

Obviously we mean to state identity between certain items, but what are these items? Presumably you think that the item is one, and it is the number six. But if so, then the statement:

$$6 = 6 \tag{1-2}$$

is exactly the same statement as (1-3). After all, both state the identity between the number six and itself. Now this seems false. The statement (1-2) is trivial requiring no knowledge of arithmetic, while (1-3) is arithmetically informative (at least slightly!).

Another proposal, favoured by Frege himself early on, is to think of (1-3) as a statement about the identity of signs themselves. Then indeed, the identity of signs, or symbolic expressions, flanking the identity sign in (1-3) is not trivial, while (1-2) is.

Of course you might wonder *what* exactly the identity between the expressions '2×3' and '$8 - 2$' could possibly even mean? If they are identified by their respective physical shapes, then they are not even similar, let alone identical. Curiously, that is precisely what Frege takes this view to imply.

Alternatively, you may take them to be identified by relevant arithmetical rules. This is at best a long-winded way of saying that they are identical by virtue of standing in the same relation to the number six. However, we are now in trouble: signs are arbitrarily related to the objects. There is no one right way for choosing to represent objects symbolically. Hence we get the same problem as before, that (1-3) and (1-2) will be different with regard to their cognitive status.

Remark 1 (The role of identity). Frege frames the puzzle as a problem about identity. Already in the arithmetical case it does not have to do anything specifically with identity. Just consider this pair of statements where one is more informative than the other:

$$\begin{gathered} 2 \times 3 > 8 - 3 \\ 6 > 5. \end{gathered} \tag{1-3}$$

Even more obvious is the use in the natural language (if we extend the discussion to natural language, see below):

Lenin is bearded.
The second son of Ilya Ulyanov is bearded. (1-4)

THE DISTINCTION. Frege introduces a new solution (opposed to his earlier own view). The expressions '2×3' and '$8 - 2$' designate the same object. Yet the object has different 'modes of presentation' in the two expressions.

Question 2. Explain the medians example in page 57.

Thus the sign is endowed with a *reference*, i.e. the object to which it refers, and with *sense*, i.e. the mode of presentation of that object.

CLARIFICATIONS. (*a*) The terminology of the 'mode of presentation' is obscure and elliptic. Frege clarifies it by linking it to our *knowledge* of the object. An object have different characteristics, and it is those characteristics that are aligned with sense. To say that an object presents to us in a certain way is to say that we know certain characteristics of the object. (*b*) Why does the expression '2×3' refer to the number six, but '2×2' does not? We want to say, 'Because it has a certain meaning in the language.' The 'meaning' here is nothing but Frege's sense. So sense *determines* the reference of the expression. (*c*) With some expressions, the sense is *transparent*. As soon as we have formulated the expression, we have specified its sense. Another way of putting this (or at least a closely related) idea: the sense of the expression is 'shown', but cannot be explicated in words. (*d*) The theory is not restricted to one domain of discourse, such as mathematics, but applies across the board. However, we encounter special problems in the treatment of natural language.

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Example 3. The expression '2×3' refers to the number six. Its sense is transparent: in uttering (formulating) the expression we use a particular characteristic of the number six—namely, that it is the product of two and three. Things are, or in any case seem, different with '6'. Here I don't use any characteristic of the number six. You might object that it is a characteristic of the number six that it is referred to with the aid of the sign '6'. It does not sound like a good objection—but see the discussion of Bach's nominal descriptivism later on in the course.

Extension to natural language. Frege makes clear that the the distinction does not apply merely to a limited area of discourse, such as mathematics. Yet in natural languages we encounter special problems. One is that the sense of the expression should be known by every competent speaker of the language. Yet in the case of ordinary proper names there is no agreement what sense should be ascribed to them. Such names should be banished from the 'perfect language'. 57–58

Example 4. Every person here is a competent user of the name 'Socrates', yet there is no consensus what sense should be ascribed to it.

Another problem is homonyms. The name 'George Bush' is used to refer to (at least) two distinct individuals. Consequently, there is no definitive sense that this name could express.

Senses and ideas. Frege is emphatic in rejecting the association between senses and ideas. By 'ideas' he typically means products of subjective experience, such as memories and mental images. The main argument is that senses can be communicated between people. Ideas cannot. I cannot convey my idea to you. For that to happen I should put my head on your shoulders. We thus have to speak of the senses of the expressions, but of the ideas of the speakers or thinkers—ideas, that is, that exist in their minds.

Remark 5. Note the example of the Moon and the analogy with retinal image.

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