

On the notion of Meaning that Dummett accredits to Frege¹

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INTRODUCTION

Dummett presents his interpretations of Frege's "On Sense and Reference" (hereafter OSR) in chapter 5 of his *Frege: Philosophy of Language*. The chapter consists in a very detailed and clarifying explanation of many passages of OSR. However, some of the interpretations he presents about the notions involved in Frege's Puzzle seem incorrect.

Frege's article is already very problematic for not being clear enough when he introduces some notions (e.g. sense, tone, and 'The True'). Dummett, in turn, proposes that Frege's theory of language involves yet another underlying notion, one that is not openly stated by him, namely, *meaning*. Three of the notions openly stated in OSR compose the latter according to Dummett, namely, sense, tone and force. It is not quite clear what he intended by doing this, because as an interpretation of OSR it seems clearly incorrect, as I hope to show in this paper, and it does not really help the reader to understand the puzzle in it. Nevertheless, the idea that meaning is composed by other semantic features seems basically correct and we can derive

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support for this claim from the fact that it is used nowadays in many theories in the philosophy of language. Thus, the conclusion of this paper shall be that, although the general idea that Dummett is putting forward is a good one in itself, it is not good as an interpretation of Frege.

The strategy to reach this conclusion is (I) to explain what Frege's puzzle is in order to elucidate what Frege's aim was. (II) To present how the notion of meaning Dummett attributes to Frege is supposed to help one to better understand the puzzle and how it fails. Finally, (III) to present Dummett's definition of meaning and show that the notion is incoherent (or at least needs a better explanation to work properly).

FREGE'S PUZZLE

At the beginning of OSR, although Frege deals with many topics, e.g. the use of empty terms, quotation, and the formation of judgments, he is mainly focused in answering four questions: (I) Is identity a relation? (II) Which entities are its *relata*? (In case the answer for (I) is affirmative) (III) In sentences about the same object, what explains the difference of cognitive value between two true sentences of the form $a=a$ and $a=b$? (IV) Why the truth of sentences of the form $a=a$ are knowable *a priori* while the truth-value of sentences of the form $a=b$ sometimes cannot be established *a priori*?

The answer to (I) is affirmative. Thus, we should search for an answer to (II). However, in order to completely answer this question, we shall first consider the last two questions. (III) and (IV) are two sides of the same coin. Both are questions that concern the same problem, namely, Frege's puzzle.

According to Frege, one knows that some sentence of the form $a=a$ is true without the need of any reasoning or inquiry, for it is a logical truth and thus knowable *a priori* without the aid of any reasoning whatsoever. On the other hand, one cannot know at first glance the truth-value of the sentence $a=b$. In sentences of the form $a=b$ generally an empirical evidence is needed, meaning that the truth of it is not known immediately. Even when empirical evidence is unrequired, like in mathematical statements, some reasoning is needed for knowing its truth².

2 The cases of mathematical statements were the most relevant for Frege, however, since Dummett pays

Whenever sentences of these kinds deal with the same object, we are struck by puzzlement in a situation that can be put forward as follows: How is it possible for two sentences expressing the same relation, about the same object, to present such epistemic difference? Or, in other words, what explains the difference of information conveyed by sentences of the form $a=b$ and $a=a$ when a and b name the same objects?

In the sentences of the form $a=b$, were the terms a and b to be denotative, like Mill proposed, it would not be possible for a difference in terms of cognitive value to exist (i.e. a difference in what is understood), because the mere comprehension of these sentences would already constitute knowledge that a and b refer to the same object, and thus, one would immediately know the truth values of the sentences. From a communicative and epistemic point of view, language would be, then, flawless. As we can see from countless examples (Superman = Clark Kent, Hesperus = Phosphorus, etc.), this is not the case. To explain these epistemic and communicative flaws of language, Frege introduces the notion of *sense*. According to him, this notion would explain this difference in cognitive value. However, for some reason that is not altogether clear³, in Dummett's eyes sense seems insufficient to explain the problem. He, then, introduces the notion of meaning.

MEANING AND COGNITIVE VALUE

The notion of cognitive value is the center of the puzzle. What are we talking about when we talk about a difference in cognitive value? Dummett offers the following explanation:

[Frege's] argument is set out in terms of the notion of 'cognitive value', that is, information content. (...) The notion of 'information' being appealed here does not require any elaborate explication: I acquire information when I learn something which I did not previously know, and Frege is asking how it is possible that I may be in a position to know the sense of an identity-statement, i.e. To understand it...⁴

more attention to the *a priori versus a posteriori* cases, we will keep the mathematical ones aside.

3 Dummett claims that he is not introducing the notion of meaning, rather the notion is underlying the whole idea Frege is proposing. (see DUMMETT (1973) pp. 83-4)

4 DUMMETT (1973) pp. 94-5.

Thus, we can build the following chain of definitions:

Cognitive value = informational content (information)

Information = 'what is learnt'

To learn = 'come to know something previously unknown'

To know = to understand

Thus, for Dummett, *cognitive value is 'what is understood (that previously was not)'*

However, this claim is highly questionable, since we obviously can say that one *understands* a false sentence, e.g. 'Hesperus is Neptune', nonetheless one would be very uncomfortable to claim that one *knows* that 'Hesperus is Neptune'. To claim that one knows a falsehood (which is different from saying that one knows that something is a falsehood) would at best require a radically unorthodox understanding of knowledge. But we shall accept, for the sake of the argument, Dummett's thesis and see where he goes with it.

He proceeds to introducing the aforementioned notion of meaning by claiming: "(...) meaning is that which a man knows when he understands a word"⁵. That is:

*To know G = to understand G = to grasp the meaning of G*⁶.

It is therefore possible to say, then, that for Dummett, when one grasps the meaning of an identity sentence G for the first time, one is learning its meaning. Therefore, one is acquiring a certain piece of information, with a certain cognitive value. From this we can conclude that the difference between the cognitive value of $a=a$ and $a=b$ (which have the same object as referent of both terms) only exists when the referent and the senses of the component terms of the sentence are previously unknown, that is, when we do not have already grasped their meanings. For example, there is only difference between cognitive values when one does not know that 'Hesperus' and 'Phosphorus' name the same object. When one learns this, 'Hesperus

5 *Ibid.* p. 95.

6 Dummett clearly states in page 92: "(...) a theory of meaning is a theory of *understanding*."

is Phosphorus' comes to have the same cognitive value as 'Hesperus is Hesperus', for nothing new is acquired.

A brief detour. Considering this view, it is also possible to conclude that the analyticity or syntheticity of a sentence like 'Hesperus is Phosphorus' is relative from subject to subject and is dependent on one's degree of astronomical knowledge. For someone that did not know that the Morning Star is the Evening Star and comes to know this fact, the sentence would be synthetic, but for a trained astronomer it would be analytic. Nevertheless, this seems to be an extremely undesirable conclusion for philosophers predating the analytic/synthetic debates started in the middle of 20th century. (This conclusion is accepted and defended nowadays by G. Russell in (2008) and the ones that share many of her views like myself).

Dummett believes that, although the notion of meaning is not explicit in Frege's writing, it is an intuitive notion that underlies his theory and is characterized by the union of three notions that Frege deals with explicitly, namely, sense, force and tone. He says that

Frege drew, within the intuitive notion of meaning, a distinction between three ingredients: sense, tone and force. That is to say, he distinguished between these three things. He does not use any word to express the general notion of 'meaning', as I have here used the word, and therefore does not claim sense, tone and force as being ingredients in anything more general. (...) we may reasonably say that Frege discerns three ingredients within the intuitive notion of meaning...⁷

It is important to stress that in this notion of meaning that Dummett is drawing up the reference is not part of the meaning of an expression. If that was the case, it would be only possible to grasp the meaning of sentences whose referents one is acquainted with. Thus, one would not understand any sentence formed by empty terms or unknown objects⁸. Furthermore, neither the problem of ambiguity of communication nor Frege's puzzle would arise.

For Dummett, then, we have the following scheme:

7 *Ibid.* pp. 83-4.

8 See *Ibid.* pp. 84 and 93.

'what is known' (knowledge) = 'what is understood' (meaning) = the sum of *sense*, *force*, and *tone*.

However, Frege explicitly says that "(...) *thought alone does not yield any knowledge, but only when associated with its reference* (...)"⁹. This points in the opposite direction of Dummett's interpretation, as we have just seen. This is, perhaps, the clearest textual evidence that Dummett's interpretation is incompatible with what Frege is really proposing. I believe that this allows me to say that what Dummett is doing, indeed, is projecting onto Frege's writing a new theory authored by him.

Another aspect of the notion of meaning that must be clarified is its compositionality. For Frege, the sense of a sentence like 'Hesperus is Phosphorus' is determined by the senses of its constituent terms 'Hesperus', 'is' and 'Phosphorus'¹⁰. Thus, it is reasonable to claim that the meaning of a sentence follows the same procedure of formation and is dependent on the meaning of its constituent terms as well. If this is the case (and I will assume it is, because it is coherent to do so), the same must be valid for force and tone, since they are constituents of meaning. Thus, the force and tone of a sentence as a whole depend on the force and tone of its constituent terms. Bearing this in mind, we shall analyze these constituent notions.

A last observation that must be made about the notion of meaning is the fact that '*Bedeutung*', the German word often translated as 'reference (referent)' literally means 'meaning'. I believe that this is evidence that Frege did not wish to introduce one more semantic notion, as Dummett believes; for if this was the case, it would be much wiser of him to preserve '*Bedeutung*' to refer to meaning and '*Referenz*' to refer to reference¹¹. Dummett is aware of this terminological issue, but he does not think it is a problem¹².

9 FREGE (2009) p. 140. My translation to English. Here, Frege uses thought (*Gedanke*) to express sense (see p. 137). However, it is acceptable to say that thought is a sum of sense, force and tone.

10 See *Ibid.* pp. 137ss.; DUMMETT *op. Cit.* p. 104.

11 I must thank Professor Dirk Greimann for pointing this out.

12 See DUMMETT *op. Cit.* p. 84.

SENSE

The notion of sense is probably the most important contribution of Frege to the philosophy of language. He proposed it to explain the puzzle of cognitive value as we saw earlier. Happily, it also explains many other phenomena, such as the use of empty names and the ability to speak about theoretical entities. At any rate, Frege's main reason to draw this notion was to solve what we called *Frege's puzzle*. For Frege, the cognitive difference between sentences of the form $a=a$ and $a=b$ that have the same object as referent can be explained simply by the idea that every sentence has a sense, which in turn has component expressions with senses of themselves. For Dummett, however, this solution relies on the notion of meaning and the difference between senses is just part of the solution¹³.

The notion of sense can be understood as the mode of presentation of a referent to a subject. In other words, a content of descriptive form that allows us to think about objects, that allows us to form thoughts about objects; or even as the description that allows one to identify, or capture, the referent of an expression in the world. Both interpretations are acceptable and widely acknowledged by commentators, though with much controversy. Since these problems are not relevant for this paper, I shall arbitrarily make use of the second definition as the standard one, for it seems to be the least controversial one.

Since there will not be a specific section to deal with reference in this paper, now seems to be a good moment to introduce what Frege believes referents are. For him, the objects themselves are the referents of names, for instance, 'Hesperus' has the planet Venus itself as its referent. On the other hand, sentences have the True and the False as their referents. Not the truth values of the sentences, but the True and the False (with capital letters) as entities themselves. The True is the referent of true sentences and the False of false sentences. That is, Frege claims that all true sentences have the same referent, the True, while all falsehoods refer to the False, even if they are about the most diverse objects. For most analytic philosophers of the 20th century, this is a controversial consequence of Frege's theory. The reason is that most of these philosophers are empiricists who wish to avoid at all costs unpalatable theories that are committed to the

13 As we shall see the other constituent notions of meaning do not play any role in the puzzle. Therefore, it is even stranger that Dummett demands the use of 'meaning' in opposition to the use of 'sense'.

existence of such things as a third 'realm' of platonic objects which are neither mental, nor material, which is precisely where the True and the False dwell¹⁴. But that is a topic for another time. The point here is not only to clarify what Frege thought about reference, but also to show that not all the semantic notions he used in his paper were compositional.

In the definition of sense adopted here, namely, the one in which sense is an entity of descriptive form that allows us to identify the referents of expressions in the real world, it is clearly possible that the sense of an expression has something personal (but not private!) to each subject. Therefore, it is possible that the descriptions that form these thoughts vary from person to person. For example, it is plausible that a subject A understands 'Amazon river' as a synonym for 'The longest river in the world' and a subject B associates the name with the description 'The river that rises in the Andes and flows into the Atlantic ocean'; speaker A does not know where the river rises or where it ends and speaker B has no idea of which is the longest river in the world. Yet, these senses are perfectly communicable, and people can talk about the Amazon river understandably with little or no deviations in the content of their conversation. Therefore, senses are considered objective and shareable, in opposition to tone and to ideas (*Vorstellungen*), as we shall see¹⁵.

Another important aspect of sense is that it makes possible to use empty terms, which are terms that have no referents, in an intelligible manner. Thanks to this notion, we can understand and use successfully sentences like 'Ulysses is an excellent commander', thanks to the notion of sense. Thus, I believe that we should make an *addendum* to our definition of sense: sense is a public thought (or part of a thought) expressed in a descriptive way that makes it possible for us to locate in the world the referents of the expression we utter, *when they exist*. In the case of empty terms, senses would allow us to locate them in scenarios where they exist.

14 Though this is a controversial point of Frege's philosophy, it is a central one, for his axiom IV of his Basic Laws of Arithmetic depends on this, and consequently his whole theory for mathematics. Also, this could be a favorable point for a radical empiricist, for it permits Frege's system to be extensional. (I am thankful to the anonymous referee for these points).

15 This point is extremely well explained by Dummett. See pp. 96ss.

TONE

In Frege's terminology, tone (or coloring, or even lighting), as opposed to sense, is the property of an expression that is related to ideas (*Vorstellungen*), which for him are incommunicable.¹⁶ For Frege, for example, when two subjects are faced with the expression 'stallion', which has the same sense for both of them (say, the description 'male equine'), it is nevertheless perfectly possible for them to form different "mental images" in relation to that expression. Subject A may imagine Marengo, Napoleon's white horse, while subject B imagines Bucephalus, Alexander's black horse. Ideas are related to emotions, memories and other sensations that are not necessarily visual (e.g. the smell of horse excrement can be associated with the word by one of the subjects while not by the other)¹⁷.

It is also possible to understand tone as the component of meaning that, when substituted in a sentence, does not alter the truth-conditions of a proposition. For example, if we compare the sentences 'Leonardo *sweats* like a pig' and 'Leonardo *perspires* like a pig' we have the same sense for both sentences, the same force and the same reference, but we would have different tones, for both these sentences contain expressions with different tones. It is not very clear what Frege understood tone to be, but from what he writes and from what Dummett claims to be written in his work, one may understand tone as something similar to symbol, sign or name (when talking about individual words)¹⁸; this is, synonymous words seem to have different tones that nevertheless hold the same senses.

FORCE

Force, according to Dummett, should be understood as the property of meaning that distinguishes sentences that have the same sense and the same tone. For example, 'the cat is white', 'is the cat white?' and 'cat, be white!'. All these sentences have the same tone and the

16 Dummett disagrees with Frege about the impossibility of the communication of ideas. It seems that it is possible to communicate these contents through very complex descriptions, or perhaps through art (graphic and sound at least). Concerning this point Dummett's objection seems correct to me.

17 See *ibid.* pp. 84-5.

18 See MILLER p. 69.

same sense, for all their constituent terms have the same tone and the same sense; yet they mean different things, because the first has the force of an assertion, the second the force of a question and the third the force of an order.¹⁹

As we previously saw, sentential meanings are dependent on the meanings of its constituent terms, as sentential senses and sentential tones depend on the senses and tones of their sub-sentential expressions. Bearing this in mind, it is fair to ask: what force an expression like the name 'Hesperus' or the verb 'to be' has? Apparently, this question seems to be nonsense, for these expressions alone do not express a thought that can be asserted or questioned. It does not seem appropriate to say that the expressions 'Hesperus' or 'Hesperus?' have force in isolation, unless we understand them as 'xHx' and 'xHx?'. However, this also does not seem appropriate, for we would no longer be talking about names, but about existential sentences instead.

It seems that force is a property existent only in sentences, or in whatever expresses a thought (*Gedanke*), in Frege's terms. However, if this is correct, the principle of compositionality of meaning would be compromised, because the sentential force, which composes the sentential meaning, does not depend on the forces of its component terms, since they do not exist.

One could propose an alternative by saying that isolated terms do not signify, that they do not have meanings. However, this seems simply wrong and incoherent with everything of we saw hitherto. For when I am faced with the word 'Hesperus' I understand something, and there is some information being received (even if an incomplete piece of information). One thing that could perhaps solve this impasse would be to present two classes of meaning: a saturated one, the complete meaning, found in terms within sentences and in the sentences themselves, and an unsaturated meaning, an incomplete one, found in free words, which convey some partial information that is not something concrete and univocal. However, to develop this train of thought is not the focus of this paper.

FINAL CONSIDERATIONS

With this paper I hope to have shown three things: (I) what exactly Frege's puzzle is and how he attempted to solve it; that (II) Dummett's notion of meaning is inconsistent with what Frege is proposing in OSR and (III) that this notion is also inconsistent with the component parts he ascribes to it, for the principle of compositionality is violated by the notion of force. I hope to have shown that Dummett's notion of meaning is not plausible as an interpretation of Frege's OSR.

Still, though the partition of the notion of meaning is flawed, it is, in principle, a good idea. And though the idea is not in Frege (since the notion is not in Frege, as we saw) it is an idea that should be pursued. I would like to register my wholehearted belief that the complex notion of meaning, in this sectioned way, introduced by Dummett is the correct and useful way to deal with problems in the philosophy of language. I believe that to solve many problems in related areas, this is the right path to follow; also, I believe that many philosophers nowadays, such as Stefano Predelli²⁰ and Gillian Russell²¹, agree with my attitude, as we can see them using and developing different aspects of the notion of meaning.

20 PREDELLI, S. *Meaning without Truth*. Oxford: Oxford University Press. 2013.

21 RUSSELL, G. *Truth in Virtue of Meaning: a defence of the analytic/synthetic distinction*. Oxford: Oxford University Press, 2008.

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RESUMO

Neste artigo, eu discuto a interpretação de "On sense and reference" de Frege feita por Dummett em seu *Frege: Philosophy of Language*, no qual ele atribui uma noção de significado a Frege que não está explícita no texto de "On sense and Reference". Eu acredito que esta atribuição é incompatível com o que Frege realmente propõe no artigo e com a própria partição da noção de significado que Dummett propõe.

Palavras-chave Dummett, Significado, Sentido, Tom, Força.

ABSTRACT

In this paper I will discuss Dummett's interpretation of Frege's "On sense and reference" offered in his *Frege: Philosophy of Language*, where he attributes a notion of meaning to Frege that is not explicit in the text of "On sense and reference". I believe this attribution is incompatible with what Frege is really saying in the article and with the partition of the notion that Dummett himself exposes.

Keywords Dummett, Meaning, Sense, Tone, Force.