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# Frege on colour-words: Dummett's alternative

**Maria Manuela Peixoto Teles - Universidade do Porto, Portugal**

**Abstract:** In this paper, I present Michael Dummett's interpretation of Gottlob Frege's considerations on colour-words as a version of conceptualism within contemporary philosophy of perception.

## **Introduction**

Perception was never a theme of investigation for Gottlob Frege. It is well-known that he was first of all a mathematician concerned with the logical foundations of arithmetics. Although it is not Frege's central concern, perception appears several times in his discussions on the nature of logic, thought and language. The role of perception in Frege's writings is usually to provide a point of comparison with the kind of objects he is interested in and how we get to know them. In his earlier works, those objects are essentially numbers, but in later works, they are thoughts and concepts. In his 1993 *Origins of Analytical Philosophy* (hereafter '*Origins*'), Michael Dummett considers that Frege wrote something substantial about perception only in two of his works: *Die Grundlagen der Arithmetik. Eine logisch mathematische Untersuchung über den Begriff der Zahl* of 1884 - trad., *The Foundations of Arithmetic: A Logico-mathematical enquiry into the concept of number* - (hereafter '*Grundlagen*'), and "*Der Gedanke*" - or, *The Thought: a Logical Inquiry* - (hereafter '*DG*') of 1918. The aim of this paper is to present Dummett's interpretation of Frege on perception, considering only what he writes in the *Grundlagen*, and more specifically in the two passages that are relevant for Dummett: §24 and §26. Dummett finds that what Frege writes about colour-words in these passages, and particularly in §26, is incoherent and inconsistent. Its incoherency stems from an apparent confusion with a crucial distinction between subjectivity and objectivity, which is crucial for Frege; its inconsistency



lies with Frege's general theory of meaning. This paper aims to show that, to surpass both the incoherence and inconsistency, Dummett presents an alternative consideration of the meaning of colour-words that is a specific version of conceptualism within contemporary philosophy of perception.

## **I. Subjectivity/Objectivity**

*Grundlagen* was written to prove that numbers and the primitive operation of arithmetics have a logical nature. To prove this, Frege starts to eliminate opposing views on the nature of numbers: first, the formalist view, according to which numbers are just the signs used to make mathematical operations; then empiricist and idealist views, in which numbers are perceptible or mental items; and lastly conceptualist views, which define numbers as properties, whether perceptual, mental or abstract. For Frege, numbers are objects that are not known by perception or introspection, but by their objective properties. Frege's notion of objectivity plays a central role in his logicist program. Frege characterises what is objective in contrast with what is subjective, and subjectivity is characterised thus:

Even an unphilosophical person soon finds it necessary to recognise an inner world distinct from the outer world, a world of sense-impressions, of creations of his imagination, of sensations, of feelings and moods, a world of inclinations, wishes and decisions. For brevity I want to collect all these, with the exception of decisions, under the word 'idea' (Frege 1956; 299).

Following the tradition, I will use 'idea' to translate '*Vorstellung*' and 'ideas' to translate '*Vorstellungen*' (Dummett 1993; Beaney 1997). So, in Frege's account, ideas are what constitutes subjectivity. They are the mental items that belong to individual streams of consciousness. It is this feature of subjectivity that motivates Frege's logicist program. According to him, what is subjective is private and thus cannot bear truth. It follows then, that truth is attributable only to what is public and can be subjected to laws, conceptualised and judged. In §26 Frege defines what is objective as that which is or can be lawful, conceptual or



judged<sup>2</sup>. Since ideas cannot be lawful, conceptual or judged, subjectivity does not bear truth, only objectivity does. Therefore, if arithmetical operations are true or false, they must involve objectivity. Frege's point is that, since logic is the science concerned with truth, truth-bearers and truth-values, arithmetic is ultimately logical.

To assure the proof that numbers are objective objects and arithmetic is ultimately logic, Frege establishes three methodological principles for the *Grundlagen*. The first is the motivation for the other two. It states that to logically ground arithmetic

‘[t]here must be a sharp separation of the psychological from the logical, the subjective from the objective’ (Beaney 1997; 90).

The two other principles are the famous context principle and the rule that concepts and objects must always be distinguished. The context principle has a crucial role within the history of analytical philosophy. Its importance and content have been subject to several disputes and developments. Among these are Dummett's interpretation of it. In *Origins*, Dummett considers that the context principle states that the meaning of a word is to be determined only in the context of a sentence. This reading is disputable, but I will take it for granted here<sup>3</sup>. In this interpretation, the purpose of the context principle is to guarantee that the meaning of a number-word, ‘three’ for instance, is not taken to be an idea, that is, a subjective item. The point is that constraining the determination of the meaning of a word to the context of the sentence containing it assures the distinction between the logical and the psychological, that is, the objective and subjective.

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<sup>2</sup> “Objectiv ist darin das Gesetzmässige, Begriffliche, Beurtheilbare” (Frege 1884 §26).

<sup>3</sup> What is at stake in the disputes on the context principle is what the context is supposed to be: namely, sentences or propositions. Dummett himself changes opinion about the import of the context principle (Viz. Green 2005).



The distinction between psychological-subjective and logic-objective is ubiquitous in Frege's writings. In his *Begriffsschrift, Eine der Arithmetischen Nachgebildete Formalsprache des Reinen denkens* - or, *Conceptual Notation, a Formula Language of Pure Thought Modelled on that of Arithmetics* – of 1879, Frege establishes a separation of judgeable content (beurteilbarer Inhalt) and an association of ideas (*Vorstellungsverbindung*). Only the first, and never the second, is expressed in his conceptual notation. In the *Grundlagen*, Frege spends the first chapters arguing that numbers are objective objects, in contrast to both subjective ideas and objective concepts. In 1891 'Über Sinn und Bedeutung' - or, *Sense and Reference* - (hereafter 'USB'), Frege is strict in separating the ideas that come to one's mind when using language and the meaning of words. In *DG*, thoughts are proved to have a diverse nature of ideas, although neither belong to the perceptible material world. Judgeable content, numbers, meanings, and thoughts, all share the property of being objective, and thus contrast with subjective ideas.

## II. The Sense of Colour-Words

For Dummett, the sharp distinction Frege establishes between subjectivity and objectivity is the ground for the incoherence and inconsistency regarding the meaning of colour-words, found in the *Grundlagen*. Although they do say something about perception, neither §24 nor §26 of the *Grundlagen* are about perception. In both, Frege's concern about colour-words is to show that, despite involving *subjective* sense-impressions or colour-sensations, they mean *objective* properties of the physical things that belong to the material world, that is, colours. Dummett is sympathetic to this insight. His problem with Frege's proposals in §24 and, particularly, §26 is that they do not elaborate this insight properly.

In §24 and §26, colour-words appear as a point of comparison with number-words. The general idea is that, although colour-words involve subjective sense-impressions or colour-sensations, they are used in language to refer to objective properties. However, as Dummett remarks, Frege ends up assuming that colour-words correspond to sense-impressions. What Frege takes



to be meaning in these passages is of great importance. When he wrote the *Grundlagen*, Frege had not yet distinguished the sense (*Sinn*) and reference (*Bedeutung*) of linguistic expressions. It is only in his celebrated USB, published seven years later, that this distinction is established. There, Frege states that meaning is not only reference but also sense. In USB, Frege develops this distinction by considering that references are the extra-linguistic items, denoted or designated by linguistic expressions, while senses are the linguistic modes of presentation of these items. There are good reasons to think that reference is what is at stake for Frege when he considers the meaning of colour-words in the *Grundlagen*, and Dummett favours this interpretation. For Dummett, it is precisely because Frege is talking about the denotation of colour-words that §24 and §26 appear as problematic. According to Dummett, §26 is problematic for Frege since it is incoherent about the objectivity and subjectivity of *the denotation* of colour-words. The central question of the *Grundlagen* is what do number-words designate. It is in this context that what Frege writes in both §24 and §26 is to be understood.

Frege begins §24 contrasting numbers with physical properties, hence his study of colour. The initial claim is that number-words have a wider application than colour-words because what is sensible, for example the colour blue, has no application to what is not, such as the number 3. As examples of what this application would be, Frege talks about the absurdity of considering a blue idea, a salty concept or a stiff judgement. And then he says:

‘When we see a blue surface, we have a specific impression, to which the word ‘blue’ corresponds; and we recognise this impression again when we catch sight of another blue surface’

(1884; §24).

Frege's goal here is to elaborate the contrast between colour-words and number-words in order to show that a correspondence between words and sense-impressions does not obtain with number-words, whereas it does with colour-words. The relevant contrast is thus one between what is sensible and what is not.



Frege's conclusion is that colours, but not numbers, are sensible and objective at the same time.

In §26, Frege rejects a conclusion that could be drawn from §24: that if numbers do not involve sensation, they must be mental. The claim would be that since they are not perceptible, that is, not attachable to specific sense-impressions, numbers are, or are assessed by, some kind of mental process. In this case, getting to the essence of numbers would be achieved enduring a psychological investigation, that is, an investigation of how numbers are formed within our minds. To respond to this claim, Frege strengthens the comparison between number- and colour-words. His proposal now is that, like colour-words, number-words have an 'objective meaning':

'Usually, with [the use of the word] 'white' people think of a certain sensation, which is naturally wholly subjective; but certainly in the linguistic use, it seems, an objective meaning is frequently achieved'  
(1884 §26).

It is then clear that Frege affirms that colour-words denote or designate objective items. Moreover, Frege continues:

'When people name Snow White, they want to express an objective quality, that they usually recognise in the daylight becoming aware of a sensation'  
(*ibid.*).

Frege is thus claiming that numbers and colours are both objective, although the latter, but not the previous, are *recognised* by ideas. It is here that Frege's remarks on colour-words in the *Grundlagen* become problematic: if colours are as objective as numbers, then they must be in sharp contrast with subjective sensations. For Dummett, it is with the possibility of being both objective and subjective that the meaning of colour-words, as Frege considers it in §24 and §26, appears incoherent.



### III. Intersubjectivity

Dummett notes that, according to Frege's previous considerations, what is objective has to be independent from ideas, and both sensations and intuitions count as ideas. Therefore, it seems Frege is incoherent when he explains in §26 that colours are the objective properties designated by colour-words, and are recognised by the colour-sensations of which we think when we use them. For Dummett, the ground for this distinction is Frege's 'most irresistible thought' that ideas are private and thus incomparable. It is this 'irresistible thought' that Dummett wishes to withdraw from Frege's insight on colour-words. According to Dummett, this thought forces Frege to assume that, besides their objective meaning, colour-words have a subjective one. In this case, objectivity and subjectivity must be separated into meaning and sensations.

As Dummett notices, Frege never mentions a subjective sense. However, Dummett believes that a subjective sense is presupposed in Frege's use of 'objective sense' [*objectiver Sinn*]. This is also controversial since Frege's words on this may be interpreted differently, but again I assume Dummett's reading. From this assumption, the question is now: what is a subjective sense for Frege?

At this point, one has to recall that, when he wrote the *Grundlagen*, Frege had not yet distinguished sense and reference. Therefore, a subjective sense is to be read as a subjective meaning. According to Dummett, a subjective meaning for Frege would have to be a meaning involving reference to a private item. Sections §24 and §26 contain two accounts of this possibility. In §24, Frege approaches what could be a subjective meaning considering a correspondence between colour-words and sense-impressions. But in §26, he considers instead a correspondence between colour-words and thoughts about sensations. The first approach, in §24, is manifestly against Frege's main point that colour-words denote or designate objective properties. Dummett believes that within the second approach, in §26, Frege tries to avoid this by considering that subjective meanings are not the private and incomparable items like sense-impressions, but are



*thoughts* about these sense-impressions. The problem for Dummett is that, considering the sharp distinction between subjectivity and objectivity, since sensations are radically private and incomparable ideas, such a thought would have to be incommunicable. Here lies what Dummett presents as an inconsistency within Frege's general theory of meaning.

Indeed, before in the §26, Frege states that objectivity is:

‘what lets itself be expressed in words’

(1884).

And add as a contrast:

‘What is a pure intuition is not communicable’

(*ibid.*).

This brings about the inconsistency with Frege's general theory of meaning. After distinguishing sense and reference in USB, Frege establishes that declarative sentences have truth-values as references and thoughts as senses. Since meanings are objective, both sense and reference are objective too. So, if thoughts are the senses of declarative sentences, thoughts are objective. Thus, for Dummett, an incommunicable thought calls into question Frege's characterisation, not of senses as non-mental items, but of senses as objective. Frege's insight on the meaning of colour-words would thus be inconsistent with his general theory of meaning.

To preserve Frege's insight without the incoherence and inconsistency it brings about, Dummett's solution is to eliminate the notion of subjective sense, and consider instead an intermediary category between subjectivity and objectivity: intersubjectivity. Dummett presents intersubjectivity as a weaker version of objectivity. While what is objective in the strong sense is totally independent of any human reaction or sensation, what is intersubjective is independent of one's individual reactions or sensations. Intersubjectivity is



therefore the result of distinguishing two kinds of objectivity: one that is not related to human reactions and sensations, and one which is. Dummett suggests that with this distinction Frege could preserve his insight on the connection of meaning and sensations that colour-words make manifest, for intersubjective properties are those which are objective but recognised by human capacities. However, since he kept his sharp distinction between subjectivity and objectivity, intersubjectivity was not available to Frege.

To make room for intersubjectivity, Dummett appeals to Ludwig Wittgenstein's observational grammar. For Dummett, to follow Wittgenstein's observational grammar is:

‘to explain the conceptual connection between the objective property of being red and the epistemological character of its being an observational property’

(Dummett 1993: 89).

This needs to be elaborated. What Dummett wishes to do with a Wittgensteinian observational grammar is to eschew the idea that the connection between the meaning of colour-words and the sensations they are attached to is a relation between objectivity and subjectivity. Intersubjectivity allows for an elimination of subjectivity in this relation, for it is a weaker kind of objectivity. Since Frege could not appeal to intersubjectivity, he could not avoid a mentalist account of meaning, which contrasts his own objectivist goals.

Dummett proposes from his Wittgensteinian investigation that the recognition of colours is provided by the acquisition and practice of a language, not by the introspection of ideas. Dummett's point is that, the fact that the meaning of colour-words involves subjective items does not render it some kind of subjective meaning, nor does it require a subjective way of presentation.

Therefore, Dummett proposes that understanding that something is blue, for example, is not done through the introspection of the visual sensations



resulting from looking at it, but instead by putting into practice the human ability to recognise intersubjective properties, like colours are. For Dummett, an objective property needs to be recognised as intersubjective to look a certain way. Such a recognition is not a report of sensations, but an application of words according to a shared linguistic agreement. The linguistic agreement at stake with the use of colour-words rules their application as correct or incorrect, so that sentences containing colour-words – such as ‘you look purple’ – are taken to be true or false. Dummett distinguishes these sentences, containing ‘is’ or ‘looks’ followed by the colour-word, as a difference in grade of objectivity, not as a difference between meaning an objective property and meaning a subjective item. His point is that the (correct and incorrect) application of colour-words is an increasing (or decreasing) ability acquired and trained in the use of language. Hence,

‘something can look red to someone only if he has the concept ‘red’: and the only manifestation of its doing so is that he says that it is or looks red. It is only those who have received a certain training in the use of colour-words who can manifest their colour-impressions; and it is only to them that we can confidently ascribe colour-impressions’

(Dummett 1993: 90).

The first part of this passage is an expression of the so-called conceptualism within the philosophy of perception. The main conceptualist claim is that to have possession of the relevant concepts is a condition to perceive things as being a certain way. Therefore, according to conceptualism, only those who have the concept ‘purple’ can see something as being or looking purple. In this respect, Dummett would side with famous conceptualists such as John McDowell or Susanna Siegel. However, there is a specific feature in Dummett’s conceptualism that not all conceptualists would follow. In the last part of the passage, Dummett demonstrates the vindication he is trying to build in *Origins*, from Frege’s insight on colour-words and Wittgenstein’s observational grammar: that the possession of concepts – and particularly colour-concepts – is not a mental process but a linguistic ability which is possible only because some



objective properties are intersubjective - that is, they are connected to human reactions and sensations. This is the case for colours, as observable, objective properties.

#### **IV. Conclusion**

In the philosophical literature on perception, conceptualism appears often as a strain of representationalism. A representationalist account of perception takes perceptual experiences to involve representations of some kind, from propositions to images. Concepts are among the kind of representations to be proposed as being involved in perception. As a conclusion to this paper, I would like to propose that Dummett's alternative to Frege conjures up a kind of conceptualism that is not representational. In Dummett's account, concepts are not representations of the world, either mental or linguistic, but linguistic tools to recognise objective properties. In the case of colour-concepts, they are linguistic tools to recognise a particular kind of objective property: those which are observable. Dummett's conceptualism is this one route of exploration for those conceptualists aiming at siding, not with a representationalist account of perception, but with a relationalist one, where perception is, first of all, a relation to the physical world.

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